

NCERT CONTRIBUTIONS
IN
VOCATIONALIZATION OF EDUCATION
1990 - 2000

Compiled by

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Foreword

The National Council of Educational Research and Training has been providing significant inputs and academic support, through its various constituents, in different areas of school education, since its inception in 1961. The main source of documentation of these inputs have been the Annual Reports of the NCERT. But it has been observed that the Annual Reports were not easily available to the faculty in the past and these are mostly out of stock for the initial 15-20 years.

The present document titled 'NCERT Contributions in Vocationalization of Education (1990-2000)' is a decennial compilation of NCERT's inputs in Vocationalization of Education. Credit goes to Dr J P Mittal, Reader, Planning Programming Monitoring and Evaluation Division for conceiving the idea and developing the document by collecting relevant information from Annual Reports of the NCERT.

I hope the document will be useful to all those who are interested in NCERT's inputs in Vocationalization of Education / School Education. It will also be helpful in self-orientation of incoming faculty.

R. P. Gupta
Head

I

VOCATIONALIZATION OF EDUCATION

1990-91

I.**VOCATIONALISATION OF EDUCATION**

Improvement of Work Education at all stages of school education has been the major concern of the NCERT. One of the important activities of the Department of Vocationalisation of Education (DVE) of the NIE has been the development and implementation of programmes and activities pertaining to the vocationalisation of Higher Secondary education. The DVE is also engaged in the task of upgrading the quality of work education in the country through Work Experience programme as an integral part of general education.

Vocationalisation of Education at the Higher Secondary Stage

The DVE undertook several programmes and activities to facilitate effective implementation of the centrally sponsored scheme of Vocationalisation of Secondary Education. These programmes were implemented in collaboration with different agencies including professional, private, voluntary and training institutions involved in the tasks related to vocationalisation of education. Development of curriculum, instructional materials, guidelines, training of vocational teacher educators, co-ordinators and other personnel engaged in the implementation of vocational education programmes at the +2 stage, organisation of extension and dissemination activities related to vocationalisation of education in collaboration with State/Union Territory level agencies and institutions, studies related to implementation of centrally sponsored scheme, organising national level

seminars and meetings in order to initiate pre-service vocational teacher training, and formulation and implementation of vocationalisation programme at the Higher Secondary stage have been some of the major activities carried out by the DVE during the period under report.

Development of Curricula and Instructional Materials

The DVE organised eight workshops for development of instructional materials in the areas of Marketing, Horticulture, Sericulture, Inland-fisheries, Electrical Motor Repair and Maintenance, Electronics, and a Sample Question Paper on Stenotyping during 1990-91.

The Department also conducted two workshops to develop agro and rural based courses on (i) Agro Based Food Industries (Animal Based), (ii) Agro Based Food Industries (Crop Based), (iii) Agro Based Food Industries (Feed Based), (iv) Sheep and Goat Husbandry, (v) Post-Harvest Technology, (vi) Floriculture, Landscaping and Bee-Keeping, (vii) Medicinal and Aromatic Plant Industry, (viii) Vegetable Seed Production, (ix) Fish Seed Production, (x) Fishing Technology, (xi) Veterinary Pharmacist-cum-Artificial Insemination Assistant, (xii) Rural Construction Technology, (xiii) Repair and Maintenance of Power Driven Farm Machines.

In addition, the DVE conducted workshops for the development of competency based curriculum on

Kathak, Tabla and Hindi Stenography as also for revision and reorganisation of Health and Para-Medical curricula. The details of workshops/meetings organised

during the period under report for development of curricula and instructional materials are given in Table 1

TABLE 1

Workshops organised during 1990-91 by the DVE for development and revision of Curricula of Vocational Courses

S. No	Title of the Programme	Dates	Venue	No. of Participants
1	Development of Textbook in the Area of Marketing	16 to 21 May 1990	Himachal Pradesh University, Shimla	11
2	Development of two Reference Books on Horticulture Vocational Courses	Phase I 12 to 17 June, 1990	NAARM, Hyderabad	12
		Phase II 20 to 22 June, 1990		2
3	Development of a Reference Book on Sericulture	5 to 10 July, 1990	University of Agricultural Sciences, G K V K Bangalore 560065	12
4	Workshop for Development of Reference Book on Inland Fishery for Vocational Teachers/Students	23 to 28 July, 1990	Central Institute of Fisheries Education, Bombay	12
5	Workshop for designing Sample Question Paper in Stenotyping for Class -XII	6 to 10 August 1990	M E S Higher Secondary School Vasco Da Gama, Goa 403802	12
6	Workshop for Development of Instructional - cum- Practical Manuals (3) for Repair, Maintenance and Rewinding of Electrical Motors (Class XI)	21 to 27 August, 1990	Institute of Engineering and Rural Technology, 26 Chatham Lines (Prayag) Allahabad (U P)	17
7	Development of a Practical Manual on Electronics for Vocational Students—Phase - I	3 to 7 September 1990	NCERT, New Delhi	5
8.	Development of Practical Manual on Electronics for Vocational Students at + 2 stage- Phase - II	7 to 11 January, 1990	NCERT, New Delhi	7
9	Minimum Competencies Based Curriculum in Classical Dance - Kathak (for 10 + 2 Classes) —Phase - I	27 to 31 August, 1990	Natya Institute of Kathak and Choreography, Gandhi-Nagar, Bangalore 560009	10

1990-91

S No	Title of the Programme	Dates	Venue	No of Participants
10	Minimum Competencies Based Curriculum in Classical Dance-Kathak (for 10+2 Classes)—Phase - II	23 and 26, October 1990	Kathak Kendra New Delhi	5
11	Workshop for Development of Agro- Based Course on Vocationalization of Education—Phase - I	10 to 14 December, 1990	NCERT, New Delhi	18
12	Development of Minimum Competency Based Curriculum on Instructional Music " Tabla"—Phase I	17 to 21 December, 1990	Vidhya Bhavan, Vishwa Bharati, Shantiniketan (West Bengal)	10
13	Workshop for Development of 12 Agro- Based Courses on Vocationalization of Education—Phase II	7 to 11 January, 1991	Industrial Training Institute Aundhra, Pune	32
14	Designing Competencies Based Curriculum for Vocational Course- Hindi Stenotyping	4 to 8 February, 1991	SIERT, Rajasthan, Udaipur	10
15	Development of Minimum Competencies Based Curriculum on Instructional Music " Tabla"—Phase - I	11 to 13 February, 1991	NCERT, New Delhi	3
16	Workshop for Revision and Reorganisation of Health and Paramedical Curricula	14 to 19 February 1991	NCERT New Delhi	17

The Department has been organising a variety of orientation programmes on Vocationalisation of Higher Secondary Education for the key persons from the States/Union Territories. The main objective of the programme is to acquaint the participants (State officials/Principals/Education officers) with different aspects of Vocationalisation of Education and to facilitate effective implementation of the centrally sponsored scheme of Vocationalisation of Secondary Education.

During the year 1990-91, the DVE organised the following orientation programmes

- Four general orientation programmes on vocationalisation of education
- Two orientation programmes for the experts/writers of instructional materials
- Two short-term training courses on vocationalisation of education for state level key functionaries.
- One orientation programme for coordinators of in-service training programmes for vocational teachers

The details of the orientation programmes conducted during 1990-91 are given in Table 2

TABLE 2

Orientation/Training programmes organised by the DVE during 1990-91

S No	Title of the Programme	Dates	Venue	No of Participants
1	Orientation programme for State Officials/Principals/ Education Officers and others in Vocationalization of Education	8 to 11 January 1991	Trichur Kerala	42
2	Orientation programme for State Officials/Principals/ Education Officers and others in Vocationalization of Education	28 to 31 January, 1991	Directorate of Education Uttar Pradesh, Lucknow	50
3	Orientation programme for State Officials/Principals/ Education Officers and others in Vocationalization of Education	12 to 15 February 1991	Board of Intermediate Education Vidya Bhavan Nampally Hyderabad	39
4	Orientation Programme for State Officials/Principals/ Education Officers and others in Vocationalization of Education	4 to 7 March 1991	Industrial Training Institute Andhra Pune	48
5	Orientation Workshop for Subject Experts in Instructional Material Development for Vocational Courses	17 to 21 December 1990	Regional College of Education Mysore	23
6	Orientation Workshop for Subject Experts in Instructional Material Development for Vocational Courses	4 to 8 February, 1991	Regional College of Education Bhubaneswar	27
7	Short-Term Training Course on Vocational Education for State Level Key Functionaries	27 November to 17 December, 1990	NCERT New Delhi	21
8	Short-Term Training Course on Vocational Education for State Level Key Functionaries	13 to 27 February, 1991	NCERT, New Delhi	17
9	Orientation of Co-ordinators for conducting Inservice Training Programme for Vocational Teachers	5 to 8 March, 1991	Allahabad (U.P.)	18

Meetings and Seminars

The twenty-fifth meeting of the General Body of the NCERT suggested that two panels of experts should be constituted; one for evolving strategies for the effective implementation of the programmes of vocationalisation of education at the Higher Secondary stage, and the other for looking after the programmes for character building and inculcation of values as well as implementation of community based services programme, as an integral part of the curricular area of work experience at the school stage

Training in the country was also organised. The details of these meetings and seminars are given in Table 3

Work Experience

In pursuance of the recommendation of the 25th General Body meeting of the NCERT (mentioned above), the NCERT has constituted another panel of experts comprising 15 members to formulate programmes of Work Experience at the school stage for character building, inculcation of values, and community services. In a meeting of the panel of experts, certain valuable recommendations were made for implementation of the Work Experience education in schools

TABLE 3

Meetings/Seminars organized by the DVE during 1990-91

S No.	Title of the Programme	Dates	Venue	No of Participants
1	Second Meeting of the Panel for Evolving Strategies for Effective Implementation of the Programmes of Vocationalization of Education	5 June, 1990	NCERT, New Delhi	11
2	Workshop to Prepare various Theme Documents on Vocationalization of Education suggested by the Panel on Vocationalization of Education	16 to 18 July, 1990	NCERT, New Delhi	8
3	National Seminar for Initiating Pre-Service Vocational Teacher Training in the country	28 to 30 August, 1990	NCERT, New Delhi	21
4	Third meeting of the Panel for Evolving Strategies for Effective Implementation of the Programmes of Vocationalization of Education	3 September, 1990	NCERT, New Delhi	11

In pursuance of the recommendation of the General Body of the Council, a panel of Vocationalisation of Education, comprising 15 eminent educationists under the Chairmanship of Prof V C Kulkandaiswamy, Vice-Chancellor, India Gandhi National Open University, New Delhi, was constituted. The DVE organised panel meetings for evolving strategies for effective implementation of the programme of Vocationalisation of Education. A National Seminar on Initiating Pre-service Vocationalisation Teacher

Other programmes organised by the DVE included the following

- Orientation programme for key persons of Navodaya Vidyalayas
- Workshop to develop sample teaching-learning plan on Work Experience.

The details of the programmes conducted by DVE during the year 1990-91 are given in Table 4

TABLE 4

Programmes of Work Experience organized by the DVE during 1990-91

S No	Title of the Programme	Dates	Venue	No. of Participant
1	First Meeting of the Panel of Experts on Work Experience	23 April, 1990	NCERT, New Delhi	12
2	Orientation Programme for Key Persons of Navodaya Vidyalayas in Work Experience	18 to 22 June, 1990	NCERT, New Delhi	53
3	Development of Sample Teaching-Learning Plans of Work Experience	10 to 14 September, 1990	Regional College of Education, Ajmer	20
4	Evaluative Study of Work done in Collaboration with Voluntary Organizations in the area of Work Experience	13 to 17 November, 1990	Madurai	21
5	Orientation Programme for Key Persons in Work Experience	22 to 25 January, 1990	Directorate of Education, Uttar Pradesh, Lucknow	45

Consultancy Services

The expertise available with the DVE is often utilized by organisations like the CBSE, Open School, Kendriya Vidyalayas, Navodaya Vidyalayas, voluntary organisations etc. in various programmes aimed at strengthening the vocationalisation of education and the work experience education in the country. Some of these are:

- Guidance provided to SIERT, Rajasthan, Udaipur and Directorate of Education, U P, for conducting district vocational surveys
- Collaboration with the Ministry of Railways and the CBSE in the development of Railway Commercial Course Curriculum and coordinating the work of development of textbooks on the General Foundation Course (Class XI) and the Railway Commercial Course (Class XI)

- Assistance to the National Literacy Mission in evaluating adult literacy and vocational training programmes run by the CEERI, Pilani, Rajasthan and submitting a report in this regard
- Assistance to the MHRD in evaluating the vocational programmes and utilisation of the financial assistance received by the Society of Rural Industrialisation (SRI), Ranchi, and submitting a report

Evaluative Studies

The DVE has been undertaking on-the-spot studies to find out strengths and weaknesses of the Vocationalisation of Education programmes being introduced by several States/Union Territories since the very beginning. In continuation of this activity, the Department conducted on-the-spot in-depth study of the implementation of the centrally sponsored scheme

of Vocationalisation of Secondary Education of the Maharashtra State during 13 November to 3 December, 1990, and of the Karnataka State from 3 to 9 December 1990

The Department also conducted a Quick-Appraisal of the implementation of the centrally sponsored scheme of Vocationalisation of Secondary Education of the States of Orissa and Tamil Nadu during 1990-91

The DVE brought out seven reports of the Quick Appraisals conducted earlier for the States of Rajasthan, Uttar Pradesh, Himachal Pradesh, Goa, Gujarat, Haryana and the Union Territory of Delhi. These reports were sent to the concerned State Governments, the Planning Commission and the Department of Education of the MHRD for their perusal and taking corrective measures for effective implementation of the programme of vocationalisation of education.

Publications

Following publications were brought out

- (i) *Vocationalisation of Education—Achievements in the Seventh Five Year Plan—A Report of the National Seminar on Vocationalisation of Education, NCERT, New Delhi.*
- (ii) *Guidelines for the Establishment of Curriculum Development Centre and Development of Curriculum and Instructional Materials—Vocational Education Programme.*
- (iii) *Guidelines for Evaluating the Implementation of Vocational Curriculum.*
- (iv) *Quick Appraisal of the implementation of Centrally Sponsored Scheme of Vocationalisation of Secondary Education—Goa.*
- (v) *Quick Appraisal of the implementation of Centrally Sponsored Scheme of Vocationalisation of Secondary Education—Gujarat.*
- (vi) *Quick Appraisal of the implementation of Centrally Sponsored Scheme of Vocationalisation of Secondary Education—Haryana.*
- (vii) *Quick Appraisal of the implementation of Centrally Sponsored Scheme of Vocationalisation of Secondary Education—Rajasthan.*
- (viii) *Quick Appraisal of the implementation of Centrally Sponsored Scheme of Vocationalisation of Secondary Education—Uttar Pradesh.*
- (ix) *Quick Appraisal of the implementation of the centrally sponsored Scheme of Vocationalisation of Secondary Education—Himachal Pradesh.*
- (x) *Quick Appraisal of the implementation of centrally sponsored Scheme of Vocationalisation of Secondary Education—Delhi.*

II

VOCATIONALIZATION OF EDUCATION

1991-92

II

Vocationalization of Education

Improvement of Work Education at all stages of school education has been one of the major concerns of the NCERT. One of the important activities of the Department of Vocationalization of Education (DVE) has been development and implementation of the programmes pertaining to vocationalization of higher secondary education. The DVE is also engaged in the task of upgrading the quality of work education in the country through Work Experience Programmes as an integral part of the general education.

Vocationalization of Education at the Higher Secondary Stage

The Department undertook several programmes to facilitate implementation of the Centrally Sponsored Scheme of Vocationalization of Secondary Education. These programmes were conducted in collaboration with different agencies including professional, private, voluntary and specialized institutions working in the areas related to vocationalization of education. Development of curricula, instructional materials including multi-media packages, guideline, training of vocational teacher educators, co-ordinators and other officials engaged in the implementation of vocational education programme at the +2 stage, training of State officials in Management Information System of vocational education programme, organization of extension and dissemination activities related to vocationalization of education in collaboration with States/UTs, studies related to implementation of Centrally Sponsored Scheme, organising national seminar for collection of information on vocationalization of education programme, formulation and implementation of vocationalization programme at the higher secondary stage are some of the major activities carried out by the Department during the period under report.

Development of Curricula, Instructional Materials and Publicity Materials

The DVE conducted several workshops to develop instructional materials, question banks and video scripts in the areas of Textile Design, Electronics, Environmental Education, Electrical Motors, Inland Fishery, Kathak, Hindi Stenography and Automobile Servicing and Maintenance; development of competency based curricula on Indian Music (Hindustani Music), Receptionist, Commercial Art and Plastic and Polymer Technology.

The Department also developed popularisation folders for 32 courses. Steps were also taken for revision and reorganization of curricula in 10 areas in vocationalization of education. The details of the Workshops conducted during 1991-92 for the development of instructional materials are given in Table 5 4

Orientation of Key Persons

The Department organized a variety of orientation programmes on Vocationalization of Higher Secondary Education for the key persons from States/UTs. The main objective of these programmes was to acquaint the participants (State Level Officials/Regional Level Officials/ District Level Officials/Principals/Education Officers) with different aspects of vocationalization of education. Precisely the following orientation programmes were conducted.

- Three General Orientation Programmes of Vocationalization of Education — two at Patna and one at Trivandrum;
- Two Orientation Programmes for Coordinators organizing in-service training programmes for vocational teachers at Lucknow and Pune;
- One short term training programme on Vocational Education for State level functionaries at NIE Campus, New Delhi in four phases with the participation of

eighteen officials in the first phase. The remaining three phases of the programme were devoted to the Management Information System of Vocationalization of Higher Secondary Education with the participation of forty eight officials. The details of Orientation Programmes conducted by DVE are given in Table 5.4.

Meetings and Seminars

The Council constituted a Panel on Vocationalization of Education under the Chairmanship of Prof V C. Kulandaiswamy, Vice-Chancellor, Indira Gandhi National Open University, with the membership of 15 eminent educationists. The DVE organized meetings of the panel for developing strategies for effective implementation of Vocationalization of Education Programme during 1992-93. The Department also organized a National Review Seminar on Vocationalization of Education with the participants of 45 officials from the States and the Union Territories. A significant activity of the DVE was to analyse the Report of the Review Committee on NPE-1986 and providing inputs to the CABE Committee of NPE-1986. Details of the meetings and seminars etc., conducted by the DVE during 91-92 are given in Table 5.4.

Work Experience Education

The Department conducted a UNESCO Regional Workshop on Evaluation Review on Improved Interaction between Education and Productive Work, at RCE, Mysore from 21 to 29 May 1991 with participation of 25 national/international delegates.

The NCERT constituted a panel of Experts comprising 15 members to formulate programmes of Work Experience at the school stage for character building and inculcation of values and on community services. The DVE organized a meeting of the panel on Work Experience.

The DVE conducted three Orientation

Programmes for key persons in Work Experience, two at Kumarbagh (Bihar) and one at Rahra (West Bengal), with the participation of 160 teachers/experts/officials

The Department also organized a training course for Work Experience Teachers in schools working in collaboration with voluntary organizations at SRI, Ranchi with the participation of 36 teachers/field workers

A National Review Seminar in Work Experience was organized at Mitra Niketan, Vellanad (Trivandrum) with the participation of 26 officials from States/UTs/ Voluntary organizations. The details of the programmes are given in Table 5.4

Consultancy Services

The National Policy on Education (1986) and the Centrally Sponsored Scheme on Vocationalization of Education visualised NCERT to function as a nodal agency for disseminating information about vocational education to agencies involved with the Scheme of Vocationalization of Education. The faculty of the DVE actively participated in various national/international meetings/seminars, study visits and provided consultancy services to support the Scheme of Vocationalization of Education.

Expertise available with the Department is often made use of by organizations like Central Board of Secondary Education (CBSE), National Open School (NOS), Kendriya Vidyalayas, Navodaya Vidyalayas, University Grants Commission (UGC), Indira Gandhi National Open University (IGNOU), voluntary organizations etc., in various programmes aimed at strengthening Vocationalization of Education and Work Experience Education in the country.

The DVE extended assistance to the MHRD in evaluating the proposals submitted by the States/UTs and voluntary organizations for financial assistance under the Centrally Sponsored Scheme of Vocationalization of Secondary Education and participated in the Grant-in-Aid Committee meetings. The Department has consultations with the Director of Vocational Education, Karnataka;

Commissioner, Public Instruction, Karnataka, the Director of Vocational Education, Kerala and the Minister of HRD, Bihar for planning the vocational education programme in the States. It also collaborated with the Ministry of Railways and CBSE in development of textbooks on Railway Commercial Course.

Evaluation Studies

The DVE has been undertaking on-the-spot studies to find out the strength and weakness of the Vocationalization of Education programme being introduced by the States/UTs from the inception of the programme. In continuation with this activity, the Department conducted on-the-spot indepth study of the implementation of Centrally Sponsored Scheme of Vocationalization of Secondary Education in Kerala from 30 September to 16 October 1991 and in Andhra Pradesh from 18 to 30 November 1991.

The Department brought out a report of on-the-spot indepth study for the State of Karnataka during 1991-92. The report was sent to all concerned in the State Government, Planning Commission, and Department of Education of MHRD for their perusal and applying corrective measures for effective implementation of Vocationalization of Education programme.

The faculty members of the DVE attended several meetings organized by various government departments, boards of examinations and educational institutions at different places during 1991-92.

Publications

PUBLISHED

- 1 Competencies Based Curriculum on Instrumental Music (Tabla)
- 2 Competencies Based Curriculum on Veterinary Pharmacist -cum- Artificial Insemination Assistant
- 3 Vocational Competencies Based Curriculum on Agro Based Industries

(Animal Based)

- 4 Vocational Competencies Based Curriculum on Agro Based Food Industries (Feed Based)
- 5 Vocational Competency Based Curriculum on Fishery Technology
- 6 Competencies Based Curriculum on Rural Construction Technology
- 7 Competencies Based Curriculum on Repair and Maintenance of Power Driven Farm Machinery
- 8 On-the-spot study of the Implementation of Vocationalization of Education Programme in the State of Kerala
- 9 A Text Book on Marketing and Salesmanship (Vol.II) Elements of Salesmanship
- 10 On the Spot Study of the Implementation of Vocational Education Programme in the State of Karnataka
- 11 Vocational Competencies Based Curriculum on Maintenance and Repair of Electrical Domestic Appliances
- 12 Report of the Orientation Workshop on Vocationalization of Education (Mysore)
- 13 Competencies Based Curriculum on Receptionist
- 14 A Textbook on Marketing and Salesmanship (Vol I) Elements of Salesmanship
- 15 Vocational Competencies Based Curriculum on Repair Maintenance and Rewinding of Electrical Motor
- 16 Vocational Competencies Based Curriculum on Lineman
- 17 Learning by Doing — The report of the National Review Seminar on Work Experience

Manuscripts submitted for publication

- 1 Manual on Practical Electronics
- 2 Elements of Electrical Technology (for Repair Maintenance and Rewinding of Electrical Motor Class XI)

1991-92

The details of workshops, meetings, training programmes, seminars etc organized by DVE during 1991-92 are given in Table

Table

**Workshops/Meetings/Seminars/Conferences/Training/Orientation
Programmes organized by DVE during 1991-1992**

S No	Title of the Programme	Dates	Venue	No of Participants
Developmental Programmes				
1	Development of Multi-media Packages for Self-Learning in Vocational Courses Electronics (Phase-I)	7 to 11 October, 1991	NCERT, New Delhi	4
2	Development of Multi-Media Package for Self Learning in Vocational Courses—Textile Design (Phase-I)	4 to 6 June, 1991	NCERT, New Delhi	3
3	Designing Competencies Based Curriculum for +2 Stage on Indian Music (Phase-I)	13 to 17 April 1991	Kurukshetra University, Kurukshetra, (Haryana)	9
4	Designing Competencies Based Curriculum for Vocational Courses—Receptionist	11 to 15 July, 1991	M E S Higher Secondary School, Vasodagama, Goa	12
5	Designing Competencies Based Curricula for Vocational Stream—Plastic and Polymer Technology	28 to 30 January, 1992	NCERT, New Delhi	8
6	Designing Competencies Based Curriculum for Vocational Courses—Commercial Art	16 to 20 September, 1991	Lucknow University, Lucknow (UP)	9
7	Revision and Reorganization of Competency Based Vocational Curricula in Technical Area	11 to 16 July, 1991	Pondicherry Engineering College, Pondicherry	18
8	Revision and Reorganization of Commerce Based Vocational Curricula (Phase-I)	7 to 11 January 1992	RCE Mysore	12
9	Revision and Reorganization of Commerce Based Vocational Curricula (Phase II)	3 to 7 February, 1992	NCERT, New Delhi	15
10	Workshop for the development of Popularization Folders on Vocational Courses	24 to 28 October, 1991	Goa Board of Sec. & Higher Sec, Education, Altobelin, Goa	23
11	Workshop for designing Sample Question papers in Hindi Stenotyping	18 to 24 February, 1992	Shanti Kunja Hardwar	11
12	Workshop for the development of a Reference Book on Inland Fishery	22 to 27 January, 1992	CIFE Mumbai	12

1991-92

S No	Title of the Programme	Dates	Venue	No of Participants
13	Revision and Reorganization of Competencies Based Vocational Curricula in Agriculture Area	26 February to 2 March, 1992	Goa Board of Secondary & Higher Sec. Education, Goa	31
14	Development of Instructional-cum-Practical Manuals (B) for Repair, Maintenance and Re-winding of Electrical Motors for Class XII (II Phase)	18 to 24 September, 1991	ITI, Aundh, Pune	18
15	Development of Instructional Material in Electronics for Vocational Students (Grade-XII) (Two Phases)	1 to 5 July, 1991	NCERT New Delhi	5
16	Development of Multi-Media Packages for Self Learning in Vocational Courses Electronics (Phase-II)	3 to 7 February, 1992	NCERT New Delhi	4
17	Textbook for Environmental Education and Rural Development for General Foundation Course (Phase II)	31 March to 5 April, 1992	SRI, Bariatu Ranchi, Bihar	14
18	Sample Question Papers on Automobile Servicing and Maintenance	25 to 28 February 1992	Bangalore	10
19	Development of Textbook for the Vocational Course of Kathak Dance, Class XI (Phase-II)	30 March to 3 April 1992	NCERT New Delhi	
20	Development of Textbook for the Vocational Course of Kathak Dance Class XI (Phase-I)	17 to 19 February 1992	NCERT, New Delhi	9
21	Textbook for Environmental Education and Rural Development for General Foundation Course (Phase I)	24 September, 1991	SRI, Bariatu, Ranchi, Bihar	7
22	Designing Competencies Based Curriculum for +2 Stage on Indian Music (Phase II)	4 to 6 September, 1991	NCERT, New Delhi	6
23	Development of Multi-Media Package for Self Learning in Vocational Courses Textile Designing (Phase-II)	12 to 14 August, 1991	NCERT, New Delhi	7
Extension and Training Programmes				
24	Short-term Training of Key Functionaries in the States in Vocational Education (Four Phases)	i) 2 to 3 December, 1991 ii) 5 to 6 December 1991 iii) 13 to 14 December, 1991 iv) 17 to 27 December, 1991	NCERT, New Delhi	18
25	Orientation of Co-ordinators for conducting In-service Training Programme for Vocational Teachers Identified by the States	17 to 20 September 1991	Maharaja Agrasen Lucknow (UP)	54
26	Orientation of Co-ordinators for conducting In-service Training Programme for Vocational Teachers Identified by the States	28 to 31 January, 1992	ITI, Aundh, Pune	45

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S No	Title of the Programme	Dates	Venue	No of Participants
27	Orientation Programme for the State Officials/ Principals/Education Officers and Others in Vocationalization of Education	26 to 27 September, 1991	A.N. Sinha Instt. Patna, Bihar	46
28	Orientation Programme for the State Officials/ Principals/Education Officers and Others in Vocationalisation of Education	12 to 15 February, 1992	Trivandrum, Kerala	25
29	Orientation Programme for the State Officials/ Principals/Education Officers and Others in Vocationalization of Education	4 to 6 March, 1992	Dept. of HRD, Patna, Bihar	33
<i>Meetings and Seminars</i>				
30	Fourth Meeting of the Panel for evolving Strategies for effective implementation of Vocationalization of Education	20 December 1991	NCERT, New Delhi	9
31	National Review Seminar on Vocationalization of Education	13 to 15 November 1991	NCERT, New Delhi	45
<i>Work Experience Programmes</i>				
32	UNESCO Regional Workshop on Evaluation Review on Improved Interaction between Education and Productive Work	24 to 29 May, 1991	RCE, Mysore	25
33	Training of Work Experience Teachers in Schools working in Collaboration with Voluntary Organizations	1 to 6 August, 1991	SRI, Baratatu, Ranchi, Bihar	36
34	Orientation Programme for Key Persons in Work-Experience (Phase-I)	20 October, 1991	Kumarbag, Champaria Block, West Champaran District, Bihar	51
35	Orientation Programme for Key Persons in Work-Experience	20 to 23 November, 1991	Brahmanand, PGBT College, N-24 Parganas West Bengal	54
36	Meeting of the Panel on Work-Experience Constituted by NCERT	8 December, 1991	Mitraniketan, Vellanad Trivandrum	4
37	National Review Seminar in Work-Experience	9 to 11 December, 1991	Mitraniketan, Vellanad Trivandrum	26
38	Orientation Programme for Key Persons in Work-Experience (Phase II)	23 to 26 March 1992	Kumarbag, Champaria Block, West Champaran District Bihar	55

III

VOCATIONALIZATION OF EDUCATION
1992-93

III. Vocationalisation of Education

Improvement of Work Education at all stages of School Education has been the major concern of the NCERT. One of the important activities of the Department of Vocationalisation (DVE) has been the development and implementation of the programme pertaining to the Vocationalisation of Higher Secondary Education and Pre-Vocational Education at the Secondary Stage. The Department undertook several programmes to facilitate implementation of the centrally sponsored scheme of Vocationalisation of Secondary Education. These programmes were conducted in collaboration with different agencies including professional, private, voluntary and specialised institutions working in the areas related to vocationalisation of education. Development and revision of curricula in modular form, instructional materials including multi-media packages, training of key functionaries from the States/UTs on implementation of vocational education programme, training in the field of Studies in Planning, Administration and Management of VEP for UNESCO Fellows; training of State officials on Management Information System (MIS) of Vocationalisation of Education, organisation of extension and dissemination activities related to vocationalisation of education in collaboration with States/UTs, studies related to implementation of centrally sponsored scheme, organisation of workshops on Vocational Education and Entrepreneurship Education; formulation and implementation of Vocationalisation programme at the Higher Secondary stage were some of the major activities carried out by the DVE during the year 1992-93. The Department remained actively engaged in the task of upgrading quality of Work Education in the country through Work Experience programmes as an integral part of general education.

Development of Curricula and Instructional Materials

During 1992-93, the DVE conducted 14 workshops to

develop (i) Instructional materials (a) Textbook in Office Practice, (b) Instructional-cum-Practical Manual on Electronics (Class XII), and (c) Reference Book on *Kathak*, (ii) Competency-based curricula in modular form (a) Computer Technique (13 core modules and 13 elective modules), (b) Software Package Application (12 core modules and 12 elective modules), (c) Dairying, (d) Auto Engineering Technology, and (e) Banking, (iii) Guidelines for Evaluating Students' Progress and (iv) video scripts in the areas of electronics and transmission system in automobiles and to revise five animal-based courses.

Orientation of Key Persons

- (i) The DVE conducted six orientation programmes for State officials in Vocationalisation of Education, one each at SIERT, Udaipur, DIET, Bhimtal, Nanital, Directorate of Vocational Education, Bangalore, RCE, Bhopal, TTI, Portblair, and BIE, Hyderabad.
- (ii) The Department also conducted a short-term training programme on Vocational Education for State Level Functionaries at NCERT, New Delhi and a training programme in the field of Studies in Planning, Administration and Management of Vocational Training Programmes for two UNESCO Fellows from Indonesia.

Meetings, Workshops and Seminars

- (i) The NCERT constituted a panel on Vocationalisation of Education under the chairmanship of Prof V. C. Kulandaivelu, Vice-Chancellor, Indira Gandhi National Open University (IGNOU), New Delhi with the membership of 15 eminent educationists. The report of the panel was submitted to the President, NCERT, in February 1993. The DVE also conducted two all India Workshops on Vocationalisation of Education

Programme in collaboration with the Ministry of Human Resource Development (Department of Education), New Delhi for reviewing the progress and sharing of experiences in the implementation of Vocationalisation of Education Programme.

(ii) A Regional Seminar on Changing Vocational World: A Challenge to Education, sponsored by UNESCO, Bangkok was organised at New Delhi from 9 to 14 December 1992 with the participation of experts from Australia, India, Iran, Malaysia, and Vietnam and seven resource persons from India.

Work Experience Education

(i) During 1992-93, the DVE conducted four orientation programmes for key persons in Work Experience.

(ii) A training course for 52 Work Experience Teachers/Field Workers in Schools, working in collaboration with a Voluntary Organisation, was also organised.

Consultancy Services

(i) The National Policy on Education, 1986 and the centrally sponsored Scheme on Vocationalisation of Education, visualised the NCERT to function as the nodal agency for disseminating information about Vocational Education to agencies involved in the scheme of Vocationalisation of Education. The faculty of the DVE actively participated in various national/international meetings/seminars, and provided consultancy services to support the scheme of Vocationalisation of Education.

(ii) Expertise available with the Department was made use of by organisations like the Central Board of Secondary Education, National Open School, Kendriya Vidyalayas, Navodaya Vidyalayas, University Grants Commission,

Indira Gandhi National Open University, voluntary organisations, etc. in various programmes aimed at strengthening of Vocationalisation of Education and Work Experience Education in the country.

(iii) The DVE provided guidance to the Director of Vocationalisation of Education, Karnataka; the Commissioner of Public Instruction, Madhya Pradesh, and the Deputy Director of Vocational Education, Delhi for planning and implementation of Vocational Education. The Department extended assistance to the MHRD in evaluating the proposals submitted by the voluntary organisations in States/UTs for financial assistance under the centrally sponsored scheme on Vocationalisation of Secondary Education and participated in the meetings of the Grant-in-Aid Committee.

Evaluation Studies

The DVE has been undertaking on-the-spot studies to find out strengths and weaknesses of the Vocationalisation of Education Programme introduced by the States/UTs. In the context of this activity, the Department conducted an on-the-spot indepth study of implementation of centrally sponsored scheme of Vocationalisation of Secondary Education in Madhya Pradesh during 1992-93.

Central Institute of Vocational Education (CIVE)

In pursuance of the decision taken in the meeting of the Executive Committee of the NCERT held on 12 February 1992 to establish the Central Institute of Vocational Education (CIVE) under the umbrella of the NCERT, the Hon'ble Minister of Human Resource Development, Government of India, laid the foundation stone of the CIVE at Bhopal on 12 August 1992. The CIVE will work as an apex research and development institution in the field of Vocational Education. The institute will have six academic Departments, viz

1992-93

- (i) Agriculture
- (ii) Business and Commerce
- (iii) Engineering and Technology
- (iv) Health and Disabled
- (v) Home Science
- (vi) Humanities, Science and Education

Publications

- (i) Competencies-based Modular Curriculum Computer Technique
- (ii) Competencies-based Modular Curriculum Software Application
- (iii) Health and Para-Medical Curricula (revised and reorganised)
- (iv) On-the-spot Study of the Implementation of Vocationalisation of Education Programme in the State of Andhra Pradesh
- (v) Hindi version of the exemplar instructional Material for Work Experience on Repair and Maintenance of Household Electrical Appliances (Classes IX and X)
- (vi) Hindi version of exemplar instructional material for Work Experience on Introduction to Home Wiring (Classes IX and X)
- (vii) Methodology of Skill Development in Teaching, Learning of Work Experience (Experimental edition)

- (viii) Karyanubhav Ke Liye Nidhanamatmak Andadesh Samagri—Kashtha-Kala (Class IX Hindi)
- (ix) Competencies-based Modular Vocational Curriculum—Sericulture
- (x) Competencies-based Modular Vocational Curriculum—Horticulture
- (xi) Competencies-based Modular Vocational Curriculum—Medicinal and Aromatic Plant Industry
- (xii) On-the-spot Study of the Implementation of Vocationalisation of Education Programme in the State of Kerala
- (xiii) Competencies-based Curriculum—Sheep and Goat Husbandry (revised)
- (xiv) Competencies-based Curriculum—Poultry Production (revised)
- (xv) Competencies-based Curriculum—Dairying (revised)
- (xvi) Competencies-based Curriculum—Veterinary Pharmacist-cum-Technician
- (xvii) Question Bank and Sample Question Paper in Auto Engineering Technology
- (xviii) Curriculum on Printing Technology and Book Binding

During 1992-93, the DVE organised several workshops, meetings, seminars, conferences, training/ orientation programmes. The details of these programmes are given in Table

TABLE

**Workshops/Meetings/Seminars/Conferences/Training/Orientation
Programmes organised by DVE during 1992-93**

S No	Title of the Programme	Dates	Venue	No of Participants
DEVELOPMENT				
1	Workshop for Development of Textbook for the Vocational Course on Kathak Dance for Class XII (Phase I)	16 to 19 June 1992	NCERT, New Delhi	6
2	Development of Instructional Material on Electronics for Vocational Courses (Class XII) Phase I	22 to 26 June 1992	NCERT, New Delhi	5
3	Workshop for Reviewing the Draft Textbook in Office Practice	29 June to 3 July 1992	NCERT, New Delhi	3

1992-93

Programme	Dates	Venue	No. of Participants
of Script for a Teaching Learning Power Transmission System in Automobiles	22 to 25 June 1992	Directorate of Education Lucknow	11
of General Competency for Teachers	13 to 17 July 1992	NCERT, New Delhi	15
for the Development of a Reference Book on Music under Indian Classical Music for use I)	13 to 15 July 1992	NCERT, New Delhi	10
Reorganisation of Competencies-based Curriculum Computer Technique (Course A and B)	24 to 29 August 1992	Pondicherry Engineering College, Pondicherry	13
Material on Methodology of Skill In Teaching Learning	25 to 28 August 1992	RCE, Bhopal	28
Competencies-based Curriculum for Courses Software Package Application	21 to 26 September 1992	PSG College of Technology, Coimbatore	8
of Instructional Material on Electronics for Students (Class XII) Phase II	21 to 25 September 1992	NCERT, New Delhi	4
of Guidelines for Evaluating Progress in Vocational Courses	3 to 7 November 1992	Indian Institute of Education, Pune	29
Reorganisation of Competencies-based in Technical Area	15 to 20 November 1992	Institute of Technology BHU, Varanasi	13
I Reorganisation of Competencies-based Curricula In Agricultural Area	5 to 9 January 1993	National Academy of Agricultural Research Management, Hyderabad	12
I Reorganisation of Commerce-based Curricula	24 to 30 March 1993	MES Institute of Management Studies and Research, Goa	18
Programme for the State Principals/ Education Officers and Vocationalisation of Education	21 to 24 April 1992	SIERT, Udaipur	32
Programme for Key Persons in Service (Regional and Joint Directorates)	21 to 24 April 1992	SCERT, Hyderabad	40
Programme for Key Persons in Service	25 to 28 April 1992	SCERT, Hyderabad	34
Programme for the State Principals/ Education Officers and Others for Vocationalisation of Education	5 to 8 May 1992	Bhimtal, Uttar Pradesh	41

1992-93

S No	Title of the Programme	Dates	Venue	No. of Participants
19	National Workshop on Entrepreneurship Education in Vocational Schools and Technical Institutions	28 to 29 May 1992	EDI of India Ahmedabad	35
20	Orientation Programme of the State Officials/Principals/ Education Officers and Others in Vocationalisation of Education	17 to 20 November 1992	Directorate of Vocational Education, Karnataka	32
21	Orientation Programme for Key Persons in Work Experience	1 to 4 December 1992	Mussoorie, Uttar Pradesh	40
22	Orientation Programme for the State Officials/Principals/ Education Officers and Others in Vocationalisation of Education	16 to 20 February 1993	Bhopal, Madhya Pradesh	50
23	Orientation Programme for State Officials/Principals/ Education Officers and Others in Vocationalisation of Education	18 to 22 January 1993	TTI, Portblair	27
24	All India Workshop for Reviewing the Progress and Sharing of Experiences of the Implementation of Vocational Education Programmes	18 to 20 January 1993	RCE, Mysore	35
25	Orientation Programme for the State Officials/Principals/ Education Officers and Others in Vocationalisation of Education	20 to 23 January 1993	Board of Intermediate Education, Nampally Hyderabad	54
26	All India Workshop for Reviewing the Progress and Sharing of Experiences in the Implementation of Vocational Education Programme	15 to 17 February 1993	RCE, Bhubaneswar	70
27	Orientation Programme for Key Persons in Work Experience	26 to 29 March 1993	Teacher Training Institute Edappally, Kerala	41
TRAINING				
28	Training of Work Experience Teachers in Schools Working in Collaboration with Voluntary Organisations	15 to 24 September 1992	Shantikunj, Haridwar Uttar Pradesh	52
29	Training in the Field of Studies in Planning, Administration and Management of Vocational Training Programmes for two UNESCO Fellows from Indonesia	27 July to 8 August 1992	NCERT, New Delhi	2
30	Short-term Training of Key Functionaries from the States on Vocational Education	4 to 15 January 1993	NCERT, New Delhi	17
PLANNING				
31	Meeting of the Departmental Advisory Board	23 October 1992	NCERT, New Delhi	8
EVALUATION				
32	Fifth Meeting of the Panel for Evolving Strategies for Effective Implementation of Vocationalisation of Education	30 July 1992	NCERT, New Delhi	10

IV

VOCATIONALIZATION OF EDUCATION

1993-94

IV. VOCATIONAL EDUCATION

Improvement of Work Education at all stages of School Education has been the major concern of the NCERT. Significant activities in this area have been the development and implementation of the programmes pertaining to the Vocationalization of Higher Secondary Education and Pre-Vocational Education at the Secondary stage. The Department of Vocationalization of Education (DVE) undertook several programmes to facilitate implementation of the Centrally Sponsored Scheme of Vocationalization of Secondary Education. These programmes were conducted in collaboration with different agencies including professional, private, voluntary and specialised institutions working in the areas related to Vocationalization of Education.

Development of instructional materials, including multi-media packages, guidelines, organisation of extension and dissemination activities related to Vocationalization of Education in collaboration with States/UTs; organising a national meeting on implementation of pre-vocational education programme and a national meeting on Status and Prospects of Vocational Education in the area of Engineering and Technology and Agriculture, and formulation and implementation of the Vocationalization Programme at the Higher Secondary stage are some of the major activities carried out by the NCERT during 1993-94.

Establishment of the Central Institute of Vocational Education

In pursuance of the decision of the Executive Committee of the NCERT in the meeting held on 12 February 1992, to establish a Central Institute of Vocational Education (CIVE) under the aegis of the NCERT, the erstwhile Department of Vocationalization of Education (DVE) was transformed into Pandit Sunderlal Sharma Central Institute of Vocational Education (PSSCIVE). The Institute was operationalised with effect from 5 July 1993 at Bhopal as a national apex research and development institution in the field of Vocational Education. The PSSCIVE will have six academic divisions.

- (i) Agriculture
- (ii) Business and Commerce
- (iii) Engineering and Technology
- (iv) Health and Paramedical, including Disabled
- (v) Home Science
- (vi) Humanities, Science and Education

The Institute will have six training laboratories and an agricultural training farm.

Development of Instructional Materials

Production of five Videos on (i) Measuring Instruments, (ii) Bipolar Transistor, (iii) Integrated Circuits, (iv)

Cathode Ray Oscilloscope, and (v) Dangers of Electricity and Safety Precautions are in the final stage of production as an integral part of multi-media packages

Orientation of Key Persons

The Institute has conducted five Orientation Programmes for State officials in Vocationalization of Education, one each at the Directorate of Vocational Education and Training, Regional Office, Pune, the Assam Engineering Institute, Guwahati; the State Institute of Science Education, Jabalpur, the State Institute of Education, Chandigarh, and the Board of Intermediate Education, Hyderabad

Meetings and Orientation Programme

- (i) A meeting of the principals and teachers of Higher Secondary Schools (Vocational Stream) in Bhopal was organised at the PSSCIVE, Bhopal on 19 August 1993 to review the implementation of Vocational Education Programme
- (ii) The Institute organised a National Meet on Status and Prospects of Vocational Education Programme in the Area of Agriculture at NAARM, Hyderabad
- (iii) The PSSCIVE conducted a National Meet on Implementation of the Pre-Vocational Education Programme at Mitra Niketan, Vellanad, Kerala. Orientation Programmes for Key Persons of the States/UTs in Work Experience (Pre-Vocational Education) were organised at Nagpur and Udaipur. A short-term Training Programme on Vocational Education for Key Functionaries from the States was also conducted

Consultancy Services

The National Policy on Education (NPE) and the Centrally sponsored scheme on Vocationalization of Education visualised that the NCERT would function as the nodal agency for disseminating information about Vocational Education to concerned agencies. The CIVE had consultations with the Director of Vocational Education, Karnataka, the Commissioner of Public Instruction, Madhya Pradesh, the Director, State Council of Educational Research and Training, Madhya Pradesh, the Deputy Director of Vocational Education, Delhi, and the Director of Education, Chandigarh, for planning and implementation of Vocational Education in their respective States/UTs. In its endeavour to strengthen Vocationalization of Education, Pre-Vocational Education and Work Experience Education in the country, the Institute also seeks assistance from organisations like Central Board of Secondary Education (CBSE), National Open School (NOS), Kendriya Vidyalayas, Navodaya Vidyalayas, University Grants Commission (UGC), IGNOU, Voluntary Organisations, etc.

The PSSCIVE extended assistance to the MHRD in evaluating the proposals submitted by the States/UTs, Voluntary Organisations for financial assistance under the Centrally Sponsored Scheme of Vocationalization of Secondary Education and Pre-Vocational Education, and participated in the Grant-in-aid Committee Meetings. The faculty of the Institute attended meetings organised by various government departments, Boards of Examinations, and several educational institutions.

The details of workshops, meetings, seminars, training orientation programmes organised by the erstwhile DVE, and the PSSCIVE, are given in Table

TABLE
Workshops/Meetings/Seminars/Conferences/Training/Orientation Programmes
Organised by PSSCIVE during 1993-94

Sl No	Title of the Programme	Dates	Venue	No. of Participants
1	National Meeting on Implementation of Pre-Vocational Education Programme	28 to 30 July 1993	Mitrniketan Vellanad (Kerala)	27
2	First Meeting of Institute's Advisory Board	29 October 1993	PSSCIVE Bhopal	16

1993-94

<i>S No</i>	<i>Title of the Programme</i>	<i>Dates</i>	<i>Venue</i>	<i>No of Participants</i>
3	National Meeting on Status and Prospects of Vocational Education Programme in the Area of Engineering and Technology	28 to 31 December 1993	NCERT New Delhi	28
4	Short-term Training of Key Functionaries from the States on Vocational Education	3 to 13 January 1993	NCERT New Delhi	20
5	National Meeting on Status and Prospects of Vocational Education Programme in the Area of Agriculture	15 to 18 March 1993	NAARM Hyderabad	31
6	Orientation Programme for State Officials of Maharashtra in Vocationalization of Education	19 to 22 April 1994	Directorate of Vocational Education and Training Regional Office, Pune	35
7	Orientation Programme for State Officials of Assam, Arunachal Pradesh, Meghalaya and Nagaland in Vocationalization of Education	27 to 30 April 1994	Assam Engineering Institute Guwahati	27
8	Meeting of the Principals and Teachers of Higher Secondary Schools (Vocational Stream) in Bhopal to review the Implementation of Vocational Education Programme in the Bhopal City	19 August 1993	PSSCIVE Bhopal	20
9	Orientation Programme for State Officials of Madhya Pradesh in Vocationalization of Education	11 to 14 October 1993	State Institute of Science Education Jabalpur	41
10	Orientation Programme for State Officials of Chandigarh, Punjab in Vocationalization of Education	2 to 5 November 1993	State Institute of Education Chandigarh	32
11	Orientation Programme for Key Persons of Maharashtra, Karnataka, Andhra Pradesh and Madhya Pradesh in Work Experience (Pre-Vocational Education)	2 to 5 February 1994	MLA Hostel Nagpur	27
12	Orientation Programme for Key Persons of Rajasthan, Punjab and Delhi in Work Experience (Pre-Vocational Education)	15 to 18 February 1994	SIERT Udaipur	24
13	Orientation Programme for State Officials/Principals/ Education Officers of Andhra Pradesh in Vocationalization of Education	2 to 5 March 1994	BIE Hyderabad	36

V

VOCATIONALIZATION OF EDUCATION

1994-95

Y

Vocational Education

Improvement of Work Education at all stage of school education has been a major concern of the NCERT. Significant activities in this area have been the development and implementation of the programmes pertaining to Vocationalisation of Higher Secondary Education and Pre-Vocational Education at the Secondary stage.

The Pandit Sunderlal Sharma Central Institute of Vocational Education (PSSCIVE), Bhopal is the national apex research and development institution in the field of Vocational Education. One of the important functions of the institute is to oversee the implementation of Vocational Education Programmes launched by the MHRD, Government of India. Other functions include advising and assisting MHRD, Government of India, State Governments, UT Administrations in the implementation of vocational education, pre-vocational education and work experience programmes, promoting, supervising and guiding establishment of comprehensive management system for vocational education at various levels, undertaking, guiding and co-ordinating curriculum development, instructional material development, training, extension, research, monitoring and evaluation, and offering consultancy to State Governments in the area of Vocational Education, Pre-Vocational Education and

One of the important functions of the Pandit Sunderlal Sharma Central Institute of Vocational Education (PSSCIVE) is to oversee the implementation of Vocational Education Programmes launched by the MHRD, Government of India.



The institute is actively engaged in the task of upgrading the quality of work education in the country through work experience and Pre-Vocational Education programmes as an integral part of general education.

Work Experience and looking after international aspects of Vocational Education In addition to these, the Institute also interacts from time to time with various Ministries/ Departments/Agencies concerned with Vocational Education in the country

The PSSCIVE, Bhopal undertook several programmes to facilitate implementation of the Centrally Sponsored scheme of Vocationalisation of Secondary Education These programmes were conducted in collaboration with different agencies including professional, private, voluntary and specialized institutions working in areas related to the Vocational Education. The institute launched a massive programme of reviewing and revision of curricula and development of instructional materials and undertook organization of several orientation programmes on Vocational Education in collaboration with States, development of guidelines for establishment of Production-cum-Training Centre and a proposal for Generic Vocational Course, organization of short term training of key functionaries of the implementing states, organisation of a Conference of Employers for Placement and Training of Vocational Students, organization of Inter-State field seminars, national meeting on Status and Prospects of Health and Para-Medical Vocational Education Programmes, and publication of a quarterly Bulletin on Vocational Education In addition to these, the Institute organized two international programmes sponsored by UNESCO/ UNEVOC The institute is actively engaged in the task of upgrading the quality of work education in the country through work experience and pre-vocational education programmes as an integral part of general education

Development Programmes

Two vocational courses have been newly designed and developed, and seventeen vocational courses have been revised at the request of the Joint Council of Vocational Education, MHRD for moving towards standardization



The work on the development of textbooks and practical manuals has been taken up for 18 courses and is at various stages of completion

A workshop for development of guidelines for establishment of Production-Cum-Training Centre in Schools in rural areas was organised. The guidelines have been submitted to MHRD for clearance on certain aspects involved in implementation of the concept

Studies

Two faculty members visited schools of Bhopal offering vocational education to oversee effective implementation of Vocational Education Programme under the contact programme launched by the Institute. The schools are used as the lab schools of the Institute

On request of the MHRD, the Institute organized Inter-State Field Seminars in two phases. In the first phase, State officials of Madhya Pradesh, Assam, Orissa and Bihar visited Tamil Nadu and Karnataka, and in the second phase, officials of Uttar Pradesh and Punjab visited Maharashtra State to acquaint themselves with the implementation of Vocational Education Programme

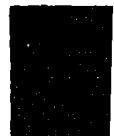
The Institute organized a National Meeting on Status and Prospects of Health and Para-Medical Vocational Education Programme at Bhopal with the participation of 37 officials

Orientation/Training

The Institute conducted 10 orientation programmes on vocationalisation of education for the State officials of Madhya Pradesh, Andhra Pradesh, Kerala, Maharashtra, Goa, Gujarat, Rajasthan, Himachal Pradesh and Uttar Pradesh with the participation of 505 officials

A short term training programme of key functionaries from 12 implementing States on Vocational Education was conducted at Bhopal

The Institute conducted 10 orientation programmes on vocationalisation of education for the State officials of Madhya Pradesh, Andhra Pradesh, Kerala, Maharashtra, Goa, Gujarat, Rajasthan, Himachal Pradesh and Uttar Pradesh with the participation of 505 officials



International Programmes

A Technical Working Group Meeting on Technical and Vocational Education for Curriculum Development and Adaptation brought out a Guidebook for Curriculum Development and Adaptation. The meeting was attended by experts from India, Australia, Bangladesh, China, Indonesia, Malaysia, New Zealand, Pakistan and Thailand.

An International Workshop on Organization and Management Alternatives for Vocational Education within the Educational System was also organized by the Institute at Bhopal. The programme was attended by experts from India, Australia, United Kingdom, Norway, Japan, Bangladesh, Philippines, China, Germany and UNESCO (Bangkok).

Assistance was extended to the MHRD in evaluating proposals submitted by voluntary organizations for financial assistance under centrally sponsored scheme.

Consultancy Services

In the context of implementation of the National Policy on Education (1986) and the centrally sponsored scheme of Vocationalisation of Education, the faculty of the PSSCIVE actively participated as experts in various national/international meetings/seminars, study visits and provided consultancy services to support the scheme of Vocationalisation of Education. Consultancy services were provided to the States of Tamil Nadu, Madhya Pradesh, Andhra Pradesh, Rajasthan, Gujarat, Goa, and Assam for planning and implementation of vocational education programmes.

Assistance was extended to the MHRD in evaluating proposals submitted by voluntary organizations for financial assistance under the centrally sponsored scheme. The PSSCIVE collaborated with CBSE in organising a Conference on Vocational Education and had discussion with the Chairman, Indian Rehabilitation Council, New Delhi regarding development of a new course in this area. It also contributed to the work on modalities for starting health related vocational courses.



Reports and other Materials brought out during 1994-95.

- ❖ Quarterly Bulletin of Vocational Education Vol I,II, III
(Printed)
- ❖ Guidelines for Adaptation of Exemplar Curriculum for Entrepreneurial Skills for Small Business (Typed/
Xeroxed)
- ❖ Report of Status of Prospects of Vocational Education Programme in the Area of Engineering and Technology held in November 1994 (Printed)
- ❖ Status and Prospects of Vocational Education Programme in the Area of Agriculture (Printed)
- ❖ Status and Prospects of Health and Paramedical Vocational Education (Printed)
- ❖ Guidelines on Teacher Preparation (Printed)
- ❖ Guidebook for Curriculum Development and Adaptation (Typed/Xeroxed)
- ❖ Competencies Based Vocational Curriculum on Bakery and Confectionery (Typed)
- ❖ Competencies Based Vocational Curriculum on Office Management (Typed)
- ❖ Competencies Based Vocational Curriculum on Horticulture (Typed)
- ❖ Competencies Based Vocational Curriculum on Dairy (Typed)
- ❖ Competencies Based Vocational Curriculum on Food Preservation and Processing (Typed)
- ❖ Competencies Based Vocational Curriculum on Building Maintenance (Typed)
- ❖ Competencies Based Vocational Curriculum on Accountancy and Auditing (Typed)



- ❖ Competencies Based Vocational Curriculum on Poultry Farming (Typed)
- ❖ Competencies Based Vocational Curriculum on Maintenance and Repair of Electrical Domestic Appliances (Typed)
- ❖ Competencies Based Vocational Curriculum on Commercial Garment Designing and Making (Typed)
- ❖ Competencies Based Vocational Curriculum on Auto Engineering Technology (Typed)
- ❖ Competencies Based Vocational Curriculum on Rural Engineering Technology (Typed)
- ❖ Competencies Based Vocational Curriculum on Textile Designing (Typed)
- ❖ Competencies Based Vocational Curriculum on Maintenance and Repair of Radio and TV Receivers (Typed)
- ❖ Competencies Based Vocational Curriculum on Garment Styling and Manufacturing (Typed)
- ❖ Guidelines for Establishment of Production-cum-Training Centre in Schools (Typed)
- ❖ Final Report of the International Workshop on Organisation and Management Alternatives for Vocational Education within the Educational System (Printed)
- ❖ Report of the Orientation Programme for State Officials/ Principals/Education Officers and others of Madhya Pradesh State on Vocationalisation of Education held in July 1994 (Typed)
- ❖ Report of the Orientation Programme for State Officials/ Principals/Education Officers and others of Gujarat State on Vocationalisation of Education held in October 1994 (Typed)
- ❖ Report of the Orientation Programme for State Officials/ Principals/Education Officers and others of Goa State on Vocationalisation of Education held in October 1994 (Typed)



- ❖ Report of the Inter State Field Seminar held in November 1994 (Typed)
- ❖ Report of the Orientation Programme for State Officials/ Principals/Education Officers and others of Himachal Pradesh on Vocationalisation of Education held in November 1994 (Typed)
- ❖ Report of the Orientation Programme for State Officials/ Principals/Education Officers and others of Kerala State on Vocationalisation of Education held in December 1994 (Typed)
- ❖ Report of the Conference of Employers for Placement and Training of Vocational Students under the scheme Each-One-Place-One held in December 1994 (Typed)
- ❖ Report of the Orientation Programme for State Officials/ Principals/Education Officers and others of Madhya Pradesh State on Vocationalisation of Education held in February 1995 (Typed)
- ❖ Report of the Orientation Programme for State Officials/ Principals/Education Officers and others of Maharashtra State on Vocationalisation of Education held in February 1995 (Typed)
- ❖ Report of the Inter-State Field Seminar (Phase-II) (Typed)
- ❖ Report of the Short Term Training Programme for Key Functionaries of Implementing States on Vocational Education held in February 1995, (Typed)
- ❖ Report of the Orientation Programme for the State Officials/Principals/Education Officer and others of Andhra Pradesh on Vocationalisation of Education held in February 1995 (Typed)
- ❖ Report of the Orientation Programme for the State Officials/Principals/Education Officers and others of Uttar Pradesh State on Vocationalisation of Education held in March 1995 (Typed)
- ❖ Report of the Orientation Programme for the State Officials/Principals/Education Officers and others on District Vocational Surveys of Rajasthan State held in April, 1995 (Typed)

The details of workshops, meetings, seminars training/ orientation programmes organised by the PSSCIVE are given in Table





Table

**Workshops/Meetings/Seminars/Conferences/Training/Orientation Programmes
organised by PSSCIVE, Bhopal during 1994-95**

S No	Title of the Programme	Dates	Venue	No. of Participants
1	Orientation Programme for State Officials/Principals/Education Officers and Others of Madhya Pradesh State on Vocationalization of Education	15 to 18 June 1994	Shiksha Mahavidyalaya Ujjain, Madhya Pradesh	58
2	National Meeting on Status and Prospects of Health and Para-Medical Vocational Education Programmes	5 to 8 July 1994	M P Academy of Administration Bhopal	37
3	Working Group Meeting on Review and Revision of Competencies Based Vocational Curriculum on Bakery and Confectionery	2 to 5 August 1994	PSSCIVE Bhopal	09
4	Working Group Meeting on Review and Revision of Competencies Based Vocational Curriculum on Office Management	8 to 12 August 1994	PSSCIVE Bhopal	04
5	Working Group Meeting on Review and Revision of Competencies Based Vocational Curriculum on Horticulture	22 to 26 August 1994	PSSCIVE Bhopal	06
6	Working Group Meeting on Review and Revision of Competencies Based Vocational Curriculum on Dairying	22 to 26 August 1994	PSSCIVE Bhopal	04
7	Working Group Meeting on Review and Revision of Competencies Based Vocational Curriculum on Food Preservation and Processing	30 August 1994 to 2 September 1994	PSSCIVE	07
8	Working Group Meeting on Review and Revision of Competencies Based Vocational Curriculum on Banking	30 August 1994 to 2 September 1994	PSSCIVE Bhopal	04
9	Working Group Meeting on Review and Revision of Competencies Based Vocational Curriculum on Building Maintenance	30 August 1994 to 2 September 1994	PSSCIVE Bhopal	05



S. No	Title of the Programme	Dates	Venue	No of Participants
10	Development of Guidelines for establishment of Production-cum-Training Centre in Schools in Rural Areas	5 to 8 September September 1994	Indian Institute of Education Pune	28
11.	Working Group Meeting on Review and Revision of Competencies Based Vocational Curriculum on Accountancy and Auditing	9 to 13 September 1994	PSSCIVE Bhopal	05
12	Working Group Meeting on Review and Revision of Competencies Based Vocational Curriculum on Crop Production	13 to 17 September 1994	PSSCIVE Bhopal	04
13	Working Group Meeting on Review and Revision of Competencies Based Vocational Curriculum on Poultry Farming	13 to 17 September 1994	PSSCIVE Bhopal	04
14	Working Group Meeting on Review and Revision of Competencies Based Vocational Curriculum on Maintenance and Repair of Electrical Domestic Appliances	19 to 23 September 1994	PSSCIVE Bhopal	05
15	Working Group Meeting on Development and Finalisation of Instructional Material for Vocational +2 Students in Bakery and Confectionery	19 to 23 September 1994	PSSCIVE Bhopal	01
16	Orientation Programme for State Officials/Principals/Education Officers and others of Gujarat State	20 to 23 September 1994	Vallabh Vidyaapeeth Anand, Gujarat	71
17	Orientation programme for State Officials/Principals/Education Officers and others of Goa State	26 to 29 September 1994	Government Polytechnic	37
18	Working Group Meeting on Entrepreneurial Skills and Development	27 to 29 September 1994	PASSCIVE Bhopal	05
19	Interstate Field Seminar			
	19.1 First Seminar	29 September to 1 October 1994	Maharashtra	18
<input type="checkbox"/>	19.2 Second Seminar	18 to 28 September 1994	Tamilnadu and Karnataka	06

No	Title of the Programme	Dates	Venue	No. of Participants
20	Working Group Meeting on Review and Revision of Competencies Based Vocational Curriculum on Commercial Garment Designing and Making	3 to 7 October 1994	PSSCIVE Bhopal	06
21	Orientation Programme on Vocational Education for the Key Functionaries of Himachal Pradesh State	7 to 10 October 1994	D Y.S.P Industries of Horticulture and Forestry, Solan	35
22	Working Group Meeting on Review and Revision of Competencies Based Vocational Curriculum on Auto Engineering Technology	7 to 11 October 1994	PSSCIVE Bhopal	06
23	Working Group Meeting on Review and Revision of Competencies Based Vocational Curriculum on Rural Engineering Technology	17 to 21 October 1994	PSSCIVE Bhopal	07
24	Orientation Programme on Vocational Education for the Key Functionaries of Kerala State	18 to 21 October 1994	Jubilee Memorial Animation Centre Trivandrum	53
25	Working Group Meeting on Development and Finalisation of Instructional Material for +2 Vocational Students in Dairy Technology			
25.1	First Programme	20 to 24 October 1994	PSSCIVE Bhopal	07
25.2	Second Programme	2 to 6 February 1995	PSSCIVE Bhopal	08
26	Conference of Employers for Placement of Trained of Vocational Students in the Scheme Each-one-Place-one	26 to 28 October 1994	NCERT, New Delhi	13
27	Working Group Meeting on Review and Revision of Competencies Based Vocational Curriculum on Textile Designing	7 to 11 November 1994	PSSCIVE Bhopal	08
28	Working Group Meeting on Review and Revision of Competencies Based Vocational Curriculum on Maintenance and Repair of Radio and TV Receivers	14 to 17 November 1994	PSSCIVE,	05



S. No.	Title of the Programme	Dates	Venue	No. of Participants
29.	International Technical Working Group Meeting on Technical and Vocational Education Curriculum Development and Adaptation	26 November 1994 to December 1994	PSSCIVE Bhopal	09
30.	Working Group Meeting on Development and Finalisation of Instructional Material for +2 Vocational Students in Building Maintenance	6 to 11 December 1994	PSSCIVE Bhopal	06
31.	Working Group Meeting on Development and Finalization of Instructional Material for +2 Vocational Students in Dairying			
	31 1 First Programme	12 to 16 December 1994	PSSCIVE Bhopal	03
	31 2 Second Programme	27 to 31 March 1995	PSSCIVE Bhopal	04
32.	Working Group Meeting on Development and Finalization of Instructional Material for +2 Vocational Students in Accountancy and Auditing			
	32 1 First Programme	19 to 23 December 1994	PSSCIVE Bhopal	04
	32 2 Second Programme	20 to 24 February 1995	PSSCIVE Bhopal	03
33.	Orientation Programme for State Officials/Principals/Education Officers and Others of Madhya Pradesh State	21 to 24 December 1994	Salem English Higher Secondary School, Raipur Madhya Pradesh	59
34.	Working Group Meeting on Development and Finalisation of Instructional Material for +2 Vocational Students in Food Preservation and Processing	19 to 23 December 1994	PSSCIVE Bhopal	03
35.	Working Group Meeting on Development and Finalisation of Instructional Material for +2 Vocational Students in Bakery and Confectionery	26 to 30 December 1994	Field Office, NCERT, Jaipur	05



S. No.	Title of the Programme	Dates	Venue	No. of Participants
36.	Orientation Programme for State Officials/Principals/Education Officers and of Maharashtra State	27 to 30 December 1994	IIT, Kolhapur	34
37.	Short Term Training Programme for Key Functionaries of Implementing States on Vocational Education	2 to 13 January 1995	PSSCIVE Bhopal	15
38.	Working Group Meeting on Development and Finalisation of Instructional Material for +2 Vocational Students in Office Management	16 to 20 January 1995	PSSCIVE Bhopal	02
39	Working Group Meeting on Development and Finalisation of Instructional Material for +2 Vocational Students in Banking	16 to 20 January 1995	PSSCIVE Bhopal	03
40	Development of Project Proposal on Generic Vocational Courses	18 to 20 January 1995	AEJC Bombay	29
41	Orientation Programme on Vocational Education for the Key Functionaries of Andhra Pradesh State	17 to 20 January 1995	Board of Intermediate Education, Hyderabad	58
42	Working Group Meeting on Development and Finalisation of Instructional Material for +2 Vocational Students in Commercial Garment Designing and Making	31 January to 4 February 1995	PSSCIVE Bhopal	05
43	International Workshop on Organisational and Management Alternatives for Vocational Education within the Education System	7 to 10 February 1995	PSSCIVE Bhopal	41
44	Working Group Meeting on Development and Finalisation of Instructional Material for +2 Vocational Students in Maintenance and Repair of Radio and TV Receivers	13 to 17 February 1995	ETCE Department Jodhpur University Calcutta	06
45	Working Group Meeting on Development and Finalisation of Instructional Material for +2 Vocational Students in Rural Engineering Technology	13 to 17 February 1995	PSSCIVE Bhopal	06



<i>S No</i>	<i>Title of the Programme</i>	<i>Dates</i>	<i>Venue</i>	<i>No of Participants</i>
46	Working Group Meeting on Development and Finalisation of Instructional Material for +2 Vocational Students in Poultry Farming	20 to 24 February 1995	PSSCIVE Bhopal	05
47	Working Group Meeting on Development and Finalisation of Instructional Material for +2 Vocational Students in Horticulture	27 February to 03 March 1995	PSSCIVE Bhopal	01
48	Orientation Programme on Vocational Education for the Key Functionaries of Uttar Pradesh State	27 February to 2 March 1995	Shivrampur Banda, UP	05
49	Orientation Programme for State Officials/Principals/Education Officers and Others in District Vocational Surveys of Rajasthan State	6 to 9 March 1995	SIERT, Udaipur	35
50	Working Group Meeting on Development and Finalisation of Instructional Material for +2 Vocational Students in Mechanical Engineering	10 to 14 March 1995	BHU Varanasi	05
51	Working Group Meeting on Review and Revision of Competencies Based Curriculum on Garment Styling and Manufacturing	21 to 25 March 1995	PSSCIVE Bhopal	01



VI

VOCATIONALIZATION OF EDUCATION

1995-96

Vocational Education

Improvement of work education at all stages of school education has been a major concern of the NCERT. Significant activities in this area have been the development and implementation of the programmes pertaining to vocationalisation of higher secondary education and pre-vocational education of the secondary stage.

Pandit Sunderlal Sharma Central Institute of Vocational Education (PSSCIVE) Bhopal is the national apex research and development institution in the field of vocational education. It is also one of the Centres of International Project on Technical and Vocational Education (UNEVOC) which is administered by UNESCO. One of the important functions of the institute is to oversee the implementation of vocational education programmes launched by the MHRD, Government of India. Other functions include advising and assisting MHRD, Government of India, state governments, and UT administrations in implementation of vocational education, pre vocational education and work experience programmes, promoting supervising and guiding establishment of comprehensive management system for vocational education at various levels, undertaking, guiding and coordinating curriculum development, instructional material development, training, extension, research, monitoring and evaluation, and offering consultancy to state governments in the area of vocational education, pre-vocational education and work experience and looking after international aspect of vocational education.

In addition to the above activities, the institute also interacts from time to time with various ministries/departments/agencies concerned with vocational education in the country.

Two vocational courses have been newly designed and developed. Six vocational courses have been revised

at the request of the Joint Council of Vocational Education, MHRD for moving towards standardisation

Thirty-seven textbooks and practical manuals for eight courses have been developed and several manuscripts are at completion stage. A curriculum on generic vocational courses for +2 academic stream students has been developed in order to develop skills which cut across various vocations.

Two documents — one for the establishment of production-cum-training centres in schools and other an Orientation Guide on different aspects of vocational education programme for the use of key functionaries of states — have been developed.

A modest beginning was made towards production of multi-media packages for the most popular vocational courses by taking up the production of four popularisation videos through outside producers.

A study on 'Assessment of skilled manpower needs in health sector' was completed and its report is being finalised. Inter-state field seminars were organised at Bikaner and Chandigarh to acquaint state officials with the implementation of the vocational education programme. Two national meetings, one on business and commerce education and other on home science education to delve on the prospects and status and the vocational education programmes in these areas were organised. Awards for best vocational teachers, students, schools and collaborating institutions were instituted to promote vocational education.

Twelve orientation programmes on vocationalisation of education for 483 key functionaries of the states of Assam, Rajasthan, Madhya Pradesh, Karnataka, Delhi,

Orientation and Training

Haryana, Tamil Nadu, Maharashtra, Bihar, Gujarat and north-eastern states were organised. Two orientation programmes on pre-vocational education for 63 key functionaries of Delhi, Chandigarh, Karnataka, Andhra Pradesh and Madhya Pradesh were conducted. A two-week training programme for key functionaries from 10 implementing states on vocational education was conducted for vocational staff development. This activity lays special emphasis on the development of role perception of the key functionaries about vocational education.

Seven teachers' training programmes of three-four weeks' duration in the areas of commercial garment designing and making, maintenance and repair of radio and TV, dairying, banking, food preservation and processing, automobile engineering and entrepreneurship development were organised.

International Programmes

A sub-regional workshop to establish UNEVOC Clearing House and Electronic Network in the Asia-Pacific Region was organised by the Adelaide Institute, TAFE in collaboration with the PSSCIVE at Bhopal. Participants from Bangladesh, Malaysia and the Philippines and experts from Adelaide Institute, TAFE (South-Australia) and PSSCIVE, Bhopal participated in the programme.

Extension

A National Centre for Vocational Education Information (NCVEI) to promote a national, regional and international network of Vocational Education System and Services has been established at PSSCIVE, Bhopal. The institute has also initiated a series of extension lectures of eminent educationists and academicians to share experiences and new concepts in technical and vocational education.

Consultancy Services

In the context of implementation of the National Policy on Education (NPE), 1986 and the centrally sponsored scheme of vocationalisation of education, the faculty of the PSSCIVE actively participated as experts in various national and international meetings and seminars, study visits and provided consultancy services to support the scheme of vocationalisation of education. Assistance was also extended to the MHRD, CBSE, AICTE, National Open

Schools, Navodaya Vidyalaya Samiti, UGC, IGNOU and voluntary organisations in the area of pre-vocational education and work experience. Consultancy services are provided to the states/UTs in order to support the scheme of vocationalisation of education.

The RIE, Ajmer developed Practice Sets in Financial Accounting based on the syllabus of the Board of Secondary Education, Ajmer.

Regional Level Inputs to Vocational Education

The RIE, Bhopal undertook the task of developing tools to assess industrial manpower needs relevant to vocational streams at the +2 stage with special reference to petro-chemical industrial sectors at Baroda and Bhopal to facilitate recast of vocational education programme course. Survey tools for conducting baseline studies on status and training needs in vocational teacher education were developed and administered on vocational teachers in the area of 'agriculture' of Maharashtra and Madhya Pradesh.

Reports and Other Materials Brought out during 1995-96

- Quarterly bulletin of Vocational Education, I, II, III, Vol. 2 (printed)
- A poster on Job Opportunities in the Area of Business and Commerce (Hindi-English) (printed)
- Guidelines on Students Evaluation (printed)
- A brochure on PSS Central Institute of Vocational Education (printed)
- Vocational Education-Organisational and Management Alternatives (printed)
- Orientation Guide on Vocational Education programme (printed)
- Vyavasayik Shiksha — Vivaranika (Hindi) (printed)
- Skilled Manpower in Agriculture Prospects and Modalities for Development — A Compendium (printed)
- A poster on Job Opportunities in the Area of Engineering and Technology (Hindi-English) (printed)

- Guidelines for Establishment of Production-cum-Training Centre (printed)
- A leaflet on National Centre for Vocational Education Information (printed)
- Inter-state Field Seminar — A Report (xeroxed)
- Competencies based Curriculum on Generic Vocational Course (xeroxed)
- Curriculum on Entrepreneurship Development—Production and Service-type Activities (xeroxed)
- Competencies based Curriculum on Rural Energy Management (xeroxed)
- Competencies based Curriculum on Basic Finance Management (xeroxed)
- Competencies based Curriculum on Catering and Restaurant Management (revised) (xeroxed)
- Competencies based Curriculum on Import and Export Practices and Documentation (revised) (xeroxed)
- Competencies based Curriculum on Library and Information Science (revised) (xeroxed)
- Competencies based Curriculum on Repair and Maintenance of Farm Machinery (revised) (xeroxed)
- Competencies based Curriculum on Commercial Art (revised) (xeroxed)
- Competencies based Curriculum on Inland Fisheries (revised) (xeroxed)
- Elementary Construction Technology—Theory for Class XI (xeroxed)
- Elementary Construction Technology—Practical for Class XII (xeroxed)
- Construction and Maintenance Technology — Theory and Practical for Class XII (xeroxed)
- Construction Management and Accounts — Theory and Practical for Class XII (xeroxed)
- Energy Application (xeroxed)
- Building Material — Theory for Class XI (xeroxed)
- Modern Building yard Practice — Theory for Class XI (xeroxed)
- Estimating and Costing — Practical for Class XII (xeroxed)
- Building Material — Practical for Class XI (xeroxed)
- Energy Application II — Theory for Class XII (xeroxed)
- Material Application — Theory for Class XI (xeroxed)
- Elements of Accounting — Theory for Class XI (xeroxed)
- Typewriting (English) I — Theory for Class XI (xeroxed)
- Office Procedure and Practice II — Theory for Class XII (xeroxed)
- Elements of Accounts — Practical Class XI (xeroxed)
- Typewriting (English) I — Practical for Class XI (xeroxed)
- Office Procedure and Practice II — Theory for Class XII (xeroxed)
- Typewriting (English) II — Theory for Class XII (xeroxed)
- Introduction to Computer Applications — Theory and Practical for Class XII (xeroxed)
- Introduction to Banking and Book Keeping — Theory for Class XI (xeroxed)
- Introduction to Banking and Book Keeping — Practical for Class XI (xeroxed)
- Deposit Accounts — Theory for Class XII (xeroxed)
- Ancillary Services — Theory for Class XII (xeroxed)
- Introduction to Computer Applications — Theory and Practical for Class XII (xeroxed)
- Dairy Animal Management — Theory for Class XI (xeroxed)

- Dairy Animal Reproduction and Lactation — Theory for Class XI (xeroxed)
- Dairy Engineering — Theory for Class XII (xeroxed)
- Milk Processing — Theory for Class XI (xeroxed)
- Dairy Products I — Theory for Class XII (xeroxed)
- Dairy Products I — Practical for Class XII (xeroxed)
- Dairy Products II — Theory for Class XII (xeroxed)
- Dairy Management — Theory for Class XII (xeroxed)
- Basic Design to Textile Designing II — Theory for Class XII (xeroxed)
- Elementary Textile: Paper — Practical Manual for Class XII (xeroxed)
- Commercial Clothing — Practical Manual for Class XII (xeroxed)
- Office Procedure and Practice — Textbook for Class XII (xeroxed)
- Deposit Accounts — Theory for Class XI (xeroxed)
- Environmental Studies and Rural Development Component of the General Foundation Course Textbook (xeroxed)
- Mushroom Cultivation (xeroxed)



**Workshops/Meetings/Seminars/Conferences/Training/Orientation
Programmes organised by PSSCIVE, Bhopal
during 1995-96**

S.No.	Title of the Programme	Dates	Venue	No. of Participants
1	2	3	4	5
1.	Working Group Meeting on Development and Finalisation of Instructional Material in Textile Designing.	10 to 14 April, 1995	PSSCIVE Bhopal	7
2.	Working Group Meeting on Development and Finalisation of Instructional Material for Class XI students Manuals in R&M or Electrical Domestic Appliances	10 to 15 April, 1995	PSSCIVE Bhopal	8
3.	Working Group Meeting on Development and Finalisation of Instructional Material in Building Maintenance.	17 to 21 April, 1995	PSSCIVE Bhopal	6
4.	Workshop on Development of Curriculum for Generic Vocational Course	18 to 22 April 1995	CBSE New Delhi	8
5.	Working Group Meeting on Development and Finalisation of Instructional Material in Dairy Technology (Phase III)	21 to 24 April, 1995	Ujjain Dugdha Maha Singh, Ujjair	8
6.	Working Group Meeting on Development of Textbook on Auto Engineering Technology	24 to 27 April, 1995	PSSCIVE Bhopal	3
7.	Working Group Meeting on Development and Finalisation of Instructional Material in Horticulture	24 to 28 April, 1995	PSSCIVE Bhopal	4
8.	Working Group Meeting on Development and Finalisation of Instructional Material for Vocational students in Poultry Farming (Phase II)	1 to 4 May, 1995	PSSCIVE Bhopal	5
9.	Working Group Meeting on Development and Finalisation of Instructional Material in Commercial Garment Designing and Linking.	1 to 5 May, 1995	PSSCIVE Bhopal	3

<u>S. No.</u>	<u>Title of the Programme</u>	<u>Dates</u>	<u>Venue</u>	<u>No. of Participants</u>
10.	Working Group Meeting of the Existing Curriculum of Instructional House keeping.	1 to 5 May, 1995	PSSCIVE Bldg. 1	6
11.	Short Term Teacher Training Programme on Maintenance and Repair of Radio and TV Receivers.	2 to 27 May, 1995	Govt. Central High School, Ghatkopar Road, Pune	20
12.	Orientation Programme on Vocational Education for State officials/Principals/ Education Officers of Rajasthan state.	8 to 10 May, 1995	SIFRT Udaipur	33
13.	Orientation Programme on Vocational Education for Key Functionaries of Assam State	9 to 12 May, 1995	Swadeshi Academy, G.S. Road, Guwahati	35
14.	Working Group Meeting on Development and Finalisation of Instructional Material in Rural Engineering Technology	16 to 19, May, 1995	PSSCIVE Bhopal	6
15.	Working Group Meeting on Review and Development of Instructional Material in Health and Para-medical Courses - Hospital House keeping.	19 to 20, May 1995	AIIMS New Delhi	12
16.	Teachers Training Programme for Vocational Teachers of Dairying.	23 May to 19 June, 1995	SRS, MDRU, Adugodi Bangalore	19
17.	Teachers Training Programme for Vocational Teachers of Textile Designing	24 May to 20 June, 1995	Govt. Girls P.G. College Kila Maidan Indore	16
18.	Teachers Training Programme for Vocational Teachers of Banking	5 to 30 June, 1995	Central Training Instt. Kerala Agri. Univ. Manimuthy, Trichur	9
19.	Teachers Training Programme for Vocational Teachers of Automobile Engineering Technology.	5 to 23 June 1995	Government I.T.I., Aurangabad	18

S.No.	Title of the Programme	Dates	Venue	No. of participants
20.	Teachers Training Programme for Vocational Teachers of Food Preservation and Processing	5 to 30 June, 1995	Instt. of Hotel Manag. Catering Tech. and Appl. Nutrition, Jairur	13
21.	Working Group Meeting on Development and Finalisation of Instructional Materials in Horticulture.	26 to 30 June, 1995	Dr. I.S. Parmar University of Hort. and Forestry, Nauni, U.LAN	9
22.	Teachers Training Programme in Entrepreneurship Dev. (General Foundation Course)	20 June to 1 July, 1995	PSSCIVE Bhopal	19
23.	Short Term Training of Key Functionaries from the States in Vocational Education.	5 to 18, July 1995	PSSCIVE Bhopal	16
24.	Working Group Meeting on Development of Textbooks and Practical Manuals in Repair and Maintenance of Electric Domestic Appliances (Class xi)	1 to 6 August, 1995	Dept. of Elect. Engg., J.N. Vyas University, Jodhpur	8
25.	Working Group Meeting on Development and Finalisation of Instructional Material in Commercial Garment Designing and Making	14 to 18 August 1995	PSSCIVE Bhopal	4
26.	Working Group Meeting on Development and Finalisation of Instructional Material in Textile Designing	21 to 26 August 1995	PSSCIVE Bhopal	5
27.	National Meeting on the Status and prospects of Vocational Courses in the area of Home Science in India.	29th August to 1 September, 1995	Dept. of Food and Nutrition, Faculty of H.S. M.S. Univ. Baroda	19
28.	Orientation Programme on Vocational education for key Functionaries of N.P. etc, specially for tribal School, Principals-Vice Principals.	2 th August to 1 September, 1995	PSSCIVE Bhopal	22

S.No. Title of the programme	Dates	No. of Participants
29. Orientation Programme for State Officials/Principals/ Education Officers of Karnataka State.	5 to 8 September 1995	Vivekanand College Bangalore
30. Working Group Meeting for the Development of Competence based curriculum in Building and Finance.	18 to 22 September, 1995	PSSCIVE Bhopal
31. Workshop on Development of Instructional Material for Generic Vocational Courses.	26 to 30 September, 1995	PSSCIVE Bhopal
32. Orientation Programme on vocational Education for the key Officials of Delhi State.	25 to 28 September, 1995	Govt. Composite Model Girls Sr. Sec. School, Shahi Thampur New Delhi
33. Working Group Meeting on Development of curriculum on entrepreneurship.	26 to 28 September, 1995	Institute of Eng. Dev. U.P. Lucknow
34. Working Group Meeting on Development and Finalisation Instructional Material in Dairy Technology.	10 to 13 October, 1995	NCERT New Delhi
35. Working Group Meeting on Development and Finalisation of Instructional Material in Health and Paramedical Course; Hospital House keeping/Sanitary Inspectors/Hospital Record keeping.	7 to 8 October, 1995	PSSCIVE Bhopal
36. Working Group Meeting on Development of Instructional Material in Bakery and Confectionary	9 to 13 October, 1995	PSSCIVE Bhopal
37. Orientation Programme on Vocational Education for Principals/education Officers/State Officials of Biharashtra State.	10 to 13 October, 1995	U.T.I. Jharkhand Ranchi Rajgarh

S.No.	Title of the Programme	Dates	Venue	No. of Participants
38.	Orientation Programme on Vocational Education for the Key Functionaries of Tamil Nadu State.	16 to 19 October, 1995	Madras	44
39.	Working Group Meeting on Development and Finalisation of Instructional material in Rural Engineering Technology	17 to 20 October, 1995	PSSCIVE Bhopal	4
40.	National Meeting on the status and Prospects of Business & Commerce Vocational Education.	14 to 17 November, 1995	PSSCIVE Bhopal	23
41.	Orientation Programme for the Key Functionaries of Bihar.	27 to 30 November, 1995	IIBM Patna	62
42.	Development of Instructional Material in Bakery & Confectionary and Food Preservation Vocational Course.	27 November to 1 December, 1995	J.W. Vyas Univ. Jodhpur	3
43.	Development of Instructional Material for Generic Vocational Course.	14 to 18 December, 1995	PSSCIVE Bhopal	13
44.	Development of Instructional Material for Health & Para-Medical Courses at 2 State.	5 to 8 January, 1996	Office of Regional Director, Voc. Edn. Pune	12
45.	Finalisation of the Existing Competency Based Vocational Curricula; Revision of Catering & Restaurant Management.	8 to 12 January, 1996	PSSCIVE Bhopal	3
46.	Workshop (phase III) for Development of Three Practical Manuals for Maintenance & Repairs of Electrical Domestic Appliances (Class XI)	15 to 20 January, 1996	J.W. Vyas University Jodhpur	7
47.	Working Group Meeting on Development of Instructional Material for Pre-Vocational Course.	9 to 14 January, 1996	PSSCIVE Bhopal	17

S.No.	Title of the Programme	Date/s	Venue	No. of Participants
48.	Review and Revision of the Competency Based Vocational Curriculum on Import & Export Practices and Documentation	15 to 19 January, 1996	PSSCIVE Bhopal	9
49.	Orientation Programme for the State Officials/Key Functionaries/Principals/Education Officers on Vocationalisation of Secondary Education in Gujarat	16 to 19 January, 1996	Swami Narayan Gurukul Pobunder	45
50.	Working Group Meeting for Development of Instructional Material for Pre-Vocational Course.	22 to 27 January, 1996	PSSCIVE Bhopal	17
51.	Finalisation of Curriculum in the Area of Basic Finance.	29 January to 1 February, 1996	PSSCIVE Bhopal	4
52.	Working Group Meeting on Review & Updating of Creche & Pre-School Management Vocational Course.	29 January to 2 February, 1996	PSSCIVE Bhopal	9
53.	Orientation Programme for the key Functionaries of Delhi.	5 to 8 February, 1996	Office of the Dy. Director of Voc.Edn. Delhi	47
54.	Orientation Programme on Guidance & Counselling for Vocational Teachers & I/cs of Guidance & Counselling in the States/UTs.	6 to 8 February, 1996	PSSCIVE Bhopal	10
55.	Working Group Meeting on Rural Energy Management.	8 to 12 February, 1996	PSSCIVE Bhopal	5
56.	Working Group Meeting for Review & Updating of Existing Curriculum of Library and Information Science.	13 to 15 February, 1996	PSSCIVE Bhopal	4
57.	Orientation Programme on Pre-Vocational Education for the key Functionaries of Delhi & Chandigarh.	13 to 15 February, 1996	Female Literacy House Sec. 42 Chandigarh	50

S.No.	Title of the Programme	Dates	Venue	No. of Participants
58.	Review & Revision of the Existing Competency Based Curriculum of Repair and Maintenance of Power-Driven Farm Machinery.	20 to 23 February, 1996	PSSCIVE Bhopal	8
59.	Working Group Meeting for Review and Updating of Existing Curriculum of Commercial Art.	20 to 23 February, 1996	PSSCIVE Bhopal	5
60.	Working Group Meeting on Instructional Material on Entrepreneurship Development.	24 to 25 February, 1996	PSSCIVE Bhopal	5
61.	Inter-state Field Seminar.	20 February to 1 march, 1996	Bikaner/ Chandigarh	14
62.	Orientation Programme for State officials/Key Functionaries/Education Officers Principals on Vocational Education for Haryana.	27 February to 1 March, 1996	ITI Faridabad	30
63.	Orientation Programme on Pre-vocational Education for the Key Functionaries of Andhra Pradesh, Karnataka and Madhya Pradesh.	12 to 14 March, 1996	PSSCIVE Bhopal	13
64.	Orientation Programme for Key Functionaries of North Eastern States.	19 to 22 March, 1996	SGBRT, DUN College Imphal	39
65.	Working Group Meeting on Revision of Competency based Vocational curriculum on Inland Fisheries.	18 to 23 March, 1996	PSSCIVE Bhopal	6
International Programme				
66.	Regional Workshop to establish UNEVOC Clearing House and Electronic Network in the Asia-Pacific Region.	30 October to 3 November, 1996	PSSCIVE Bhopal	16

VII

VOCATIONALIZATION OF EDUCATION

1996-97

VOCATIONAL EDUCATION

Improvement of Work Education at all stages of school education has been a major concern of the NCERT. Pandit Sunderlal Sharma Central Institute of Vocational Education (PSSCIVE), Bhopal is the national apex research and development organisation in the field of Vocational Education. It is also one of the centres of international project on Technical and Vocational Education (UNEVOC) which is administered by the UNESCO. The aim of PSSCIVE is to provide R and D and technical support to a variety of vocational education programmes. The important functions of the PSSCIVE include to advise and assist the MHRD, Government of India, State Governments and Union Territory administrations in the implementation of Vocational Education (VE) and Work Experience (WE) programmes to function as the technical wing of the Joint Council of Vocational Education and the MHRD on all matters relating to VE and WE programmes, to promote, supervise and guide the establishment of comprehensive management system for vocational education at different levels, i.e. national, state, district and institutional, to function as overall resource institution in the areas of VE and WE, both formal and non-formal. Other functions include studying and monitoring the educational requirements of the country as a whole in regard to preparing manpower for development, developing need-based vocational programmes for neo-literates and other special groups, undertaking guiding and co-ordinating curriculum and instructional material development, staff development and training, dissemination of literature and research findings, monitoring and evaluation and offering consultancy to state governments in the areas of VE and WE; ensuring the uniformity of pattern in the context of national system of vocational education and maintaining quality standards including those of teaching professions at all levels; promoting excellence at all levels of various types of VE programmes, both formal and non-formal, throughout the country; catering to the needs of research and other studies in the field of

VE and WE and in the related and supportive areas, establishing equivalence of certificates and to accredit vocational institutions and programmes while keeping the quality parameters in view, promoting a national, regional and international network of vocational education information system and services based on voluntary cooperation of related and other organisations and facilitating effective access to information and to looking after the international aspects of vocational education and human resource development.

Development Programmes

Vocational Curriculum

Curricula in Library and Information Science, Marketing and Salesmanship, Plant Protection, Clothing for the Family, Sericulture, Travel and Tourism Techniques and Plastic Technology have been revised. New curricula for the Vocational Counselling and Guidance, Processing of Agro-Forest Produce, and Watershed Management have been developed.

Instructional Materials for Vocational and Pre-Vocational Courses, Neo-literates and Adults

Instructional materials in the areas of Entrepreneurship Development, Crop Production, Bakery and Confectionery, Food Preservation, Mechanical Engineering Technology, Inland Fisheries, Sericulture and Vocational Guidance and Counselling have been developed. Materials for the adults as a part of continuing education in VE are being developed. Instructional Materials (Modules) for Pre-Vocational Courses in Nursery Raising, Aquaculture, Weed Technology, Bio-fertilisers, Handicraft, Designing and Making of Children's Garments, Retailing and Shorthand have been prepared. Instructional materials in Mechanical Engineering Technology for Class XI and Horticulture for Class XII have also been developed. The following 31 manuscripts developed during 1996-97 have been/are being sent to the states for multiplication and distribution to concerned schools

Dairying	1
Dairy Technology	5
Office Management	1
Banking	1
Commercial Garment Designing	4

and Making	
Textile Designing	2
Building Maintenance	4
Rural Engineering Technology	6
Horticulture	5
Poultry Farming	1
Bakery and Confectionery	1

Preparation/Revision of Guideline Documents

The following guideline documents were prepared/revised

- Handbook for Vocational Survey Workers (revised)
- Accreditation of NGOs and Private Institutions
- Guidelines for Organisation of In-service Training Programmes for the Vocational Teachers (revised)

Video Films

Four video films on popularisation of vocational courses in the areas of Agriculture (Horticulture), Home Science and General Foundation Course were produced. Some of these films have already been telecast on the Doordarshan

Training Programmes

In order to improve instruction in the vocational schools, nine teacher training programmes in the areas of Entrepreneurship Development, Building Maintenance, Inland Fisheries, Bakery and Confectionery, Computer Science, Office Management, Guidance and Counselling and Accountancy were organised. One training programme for the resource persons/trainers for Generic Vocational Course (GVC) was also organised. A short-term training programme for key functionaries of states was organised to bring about conceptual clarity with regard to implementation of the programmes of Vocational Education and Pre-Vocational Education

Extension

Three national meetings on Vocational Education for the employers in Agricultural Production, Food Processing, and Industries and Information Technology were organised. These meetings were attended by eminent academicians, industrialists, scientists and employers of the concerned areas. The reports of these national meetings were brought out.

A national seminar on 'Apprenticeship Training for Self-Employment Support and Placement' was also held. In this seminar, experts from the MHRD, BOAT, DGET, State Directorates of Vocational Education and Industries participated. Draft guidelines for providing apprenticeship training were prepared.

Eight orientation programmes on Vocational Education for 327 key functionaries of the states/UTs of Bihar, Rajasthan, Karnataka, Tamil Nadu, Maharashtra, Haryana, Orissa and Pondicherry were organised. One orientation programme on Pre-Vocational Education for the north-eastern states was organised at Imphal. Another orientation programme for key functionaries for 66 northern states on Pre-Vocational Education was organised at Lucknow.

The first issue of the bi-annual *Indian Journal of Vocational Education* was brought out. This journal highlights the growth of Vocational Education programme in the country and research and developmental work in this area. Three issues of the quarterly bulletin *Vocational Education* were published and sent to concerned state officials and 4,000 schools. Eminent educationists of the country were invited to deliver extension lectures and share their experiences on pertinent issues in Vocational Education. These programmes are meant for professional enrichment of the faculty.

Evaluation

The work of evaluation of voluntary organisation running vocational courses, receiving grants from MHRD, has been assigned to the PSSCIVE Joint Evaluation Teams (JETs) were constituted for this purpose by the MHRD. These JETs visited NGOs in Delhi, Bihar, Maharashtra, Rajasthan, Orissa, Punjab, Uttar Pradesh, Manipur, Sikkim, Haryana, West Bengal and Kerala. The NGOs of Mahdyu Pradesh are being evaluated. Reports of the evaluation of NGOs were submitted to the MHRD.

International Relations

The UNEVOC centres have been created in more than 100 countries of the world with a view to networking national institutions and centres directly for bilateral cooperation and exchange of information dealing with three programme areas such as system development, infrastructures and information and

communication networking. The PSSCIVE, as a UNEVOC Centre for India, has been very active as regards its roles and contributions in the international arena, particularly the UNEVOC activities coming under UNESCO. The UNEVOC inventory prepared by the UNEVOC Centre, Berlin, inter alia, includes a list of various activities and publications related to PSSCIVE. The institute has implemented the Cultural Exchange Programmes (CEP) with Belgium and Republic of Korea (South Korea) by initiating the process of exchange of information and documentation on Vocational Education as per the signed document of CEP between the two countries.

Regional Level Inputs to Vocational Education

The RIE, Bhubaneswar conducted a four-day orientation programme for key functionaries of the states on issues, trends and implementation strategies of vocationalisation of education.

Reports and Other Materials Brought Out during 1996-97

General Publications

- 1 Quarterly bulletin *Vocational Education*, Issue IV, Vol II, January-March 1996
- 2 Quarterly bulletin *Vocational Education*, Issue I, Vol. III, April-June 1996
3. Quarterly bulletin *Vocational Education*, Issue II, Vol. III July-September 1996
- 4 *Indian Journal of Vocational Education*, Issue I, Vol. I
- 5 Six Posters in English: Job Opportunities in the area of (i) Engineering and Technology, (ii) Home Science, (iii) Agriculture (Hindi and English)
- 6 A Framework on Vocational Guidance Services in Vocational Schools up to +2 Level

Curriculum Development/Revision

- 7 Competencies Based Vocational Curriculum on Dairy Technology
- 8 Competencies Based Vocational Curriculum on Poultry Farming
- 9 Curriculum Generic Vocational Course
- 10 Curriculum in Basic Finance Service
11. Curriculum in Marketing and Salesmanship

12. Competencies Based Curriculum of Library and Information Science (Revised) (xeroxed)
13. Competencies Based Curriculum on Marketing and Salesmanship (revised) (xeroxed)
- 14 Competencies Based Curriculum on Processing of Agriculture and Forest Produce (xeroxed)
- 15 Competencies Based Curriculum on Watershed Management (xeroxed)
- 16 Competencies Based Curriculum on Plant Protection (Revised) (xeroxed)
- 17 Competencies Based Curriculum on Sericulture (Revised) (xeroxed)
- 18 Competencies Based Curriculum on Travel and Tourism Techniques (revised) (xeroxed)

Reports on National Meetings/Seminars

- 19 Report on National Meeting on Status and Prospects of Vocational Education Programme in the Area of Business and Commerce (xeroxed)
- 20 Report on National Meeting on Vocational Education for the Employers of Agriculture Production (xeroxed)
- 21 Report on National Meeting on Human Resources for Food Processing Industries (xeroxed)
- 22 Report on National Meeting on Information Technology (xeroxed)
- 23 Report on National Seminar on Apprenticeship Training for Self-employment and Placement (xeroxed)

Instructional Materials. Textbooks/Practical Manuals

- 24 Instructional Material for Class XI in Generic Vocational Course (theory)
- 25 Basic Electrical Technology – Textbook for Class XI (xeroxed)
- 26 Milk Processing-Practical Manual for Class XI (xeroxed)
- 27 Dairy Engineering – Practical Manual for Class XI (xeroxed)
- 28 Food Preservation Techniques-Practical Manual for Class XI (xeroxed)
- 29 Fundamentals of Food Preservation-Prac-

tical Manual for Class XI (xeroxed)

30 Elementary Textile-Textbook for Class XI (xeroxed)

31. Apparel Design-Textbook for Class XI (xeroxed)

32 Commercial Clothing-Practical Manual for Class XI (xeroxed)

33. Basic Design to Textile Design-Practical Manual for Class XI (xeroxed)

34. Textile Craft-Practical Manual for Class XI (xeroxed)

35 Mechanical Engineering Technology: Manufacturing Processing-Practical Manual for Class XI (xeroxed)

36 Maintenance and Repair of Electrical Domestic Appliances-Textbook for Class XI (xeroxed)

37. Building Material-Textbook for Class XI (xeroxed)

38 Alternative and Modern Building Yard Practices-Textbook for Class XI (xeroxed)

39 Estimating and Costing-Practical Manual for Class XII (xeroxed)

40 Building Material-Practical Manual for Class XI (xeroxed)

41 Material Application-Textbook for Class I (xeroxed)

42 Soil and Water Management-Textbook for Class XII (xeroxed)

43. Soil and Water Management-Practical Manual for Class XII (xeroxed)

44 Energy Application II-Textbook for Class XII (xeroxed)

45 Fundamentals of Horticulture-Practical Manual for Class XI (xeroxed)

46 Fruit Production-Textbook for Class XI (xeroxed)

47 Vegetable Production-Practical Manual for Class XI (xeroxed)

48 Deposit Accounts-Practical Manual for Class XI (xeroxed)

49 Business Communications and Statistics Textbook for Class XI (xeroxed)

50 Business Communications and Statistics Practical Manual for Class XI (xeroxed)

51. Auditing-Theory for Class XII (xeroxed)

52. Elements of Accounting—Theory for Class XII (xeroxed)

53. Dairy Production and Quality of Milk—Textbook for Class XI (xeroxed)

54 Instructional Materials for Neo-literates (Vermiculture)

55. Food Production—Practical Manual for Class XI (xeroxed)

56 Forage Production and Conservation—Textbook for Class XI (xeroxed)

57 Food Preservation Techniques-Textbook for Class XI (xeroxed)

58 Fundamental of Food Preservation—Textbook for Class XI (xeroxed)

59 Textile Craft (Traditional and Creative) – Textbook for Class XI (xeroxed)

60 Apparel Design-Practical Manual for Class XI (xeroxed)

61 Manufacturing Material and Technology-Textbook for Class XII (xeroxed)

62 Basic Confectionery - Textbook for Class XI (xeroxed)

63 Vegetable Production - Textbook for Class XI (xeroxed)

64 Poultry Production and Breeding - Textbook for Class XII (xeroxed)

65 Foundations of Food Science - Textbook for Class XII (xeroxed)

66. Engineering Science and Mechanical Measurement-Textbook for Class XII (xeroxed)

67 Environment and Hospital Infection-Textbook for Class XI (xeroxed)

68 Instructional Material for Neo-literates (Sericulture) (xeroxed)

69 Inland Fisheries - Textbook for Class XI (xeroxed)

Pre-Vocational Exemplar Materials

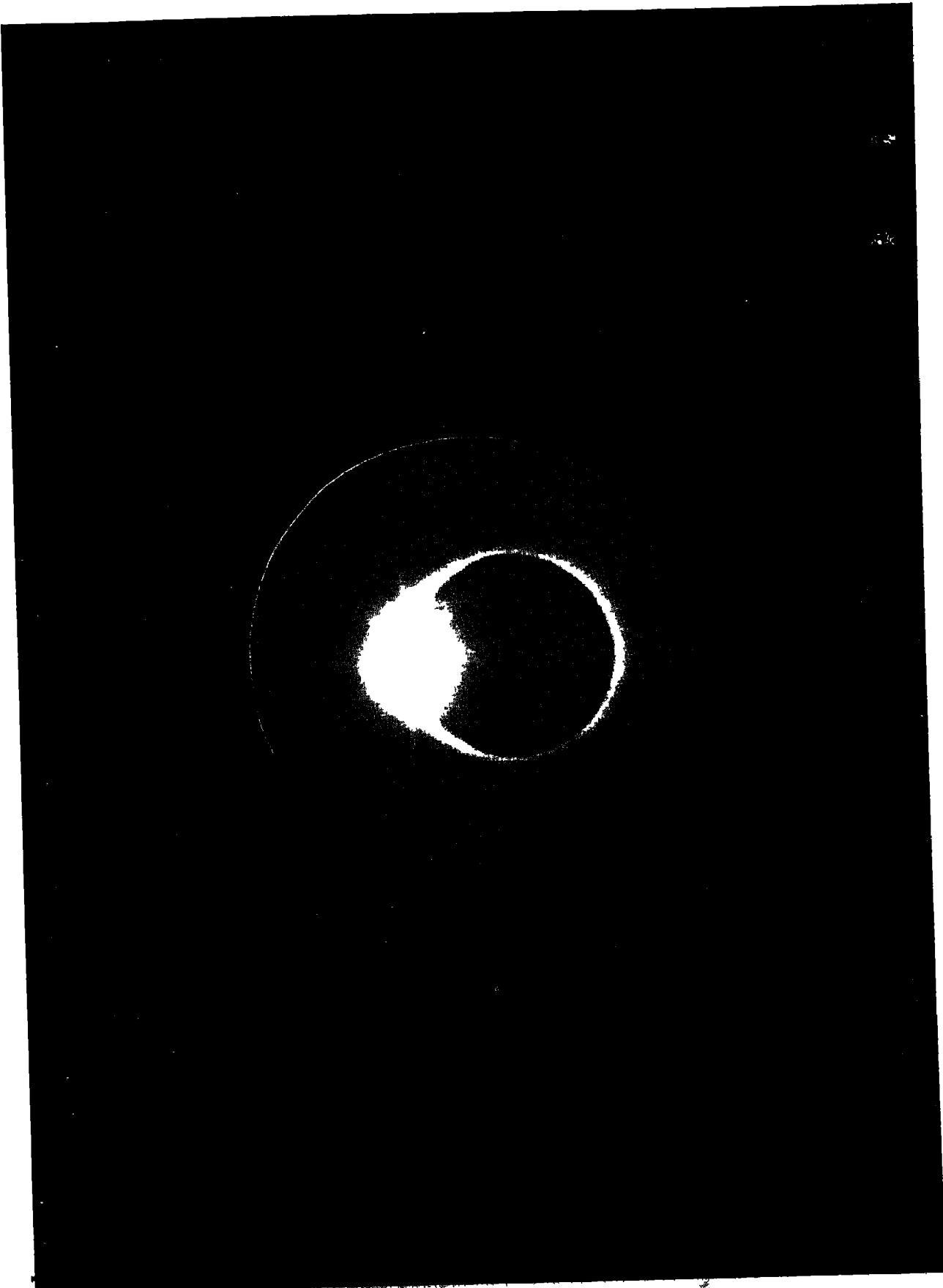
70. Bio-Fertilisers (xeroxed)

71. Bee Keeping (xeroxed)

72 Vermiculture (xeroxed)

73 Aquaculture (xeroxed)

74 Decorative Techniques for Children's Wear (xeroxed)



**Workshops/Meetings/Seminars/Conferences/Training/Orientation
Programmes organised by PSSCIVE, Bhopal**

S.No.	Title of the Programme	Dates	Venue	No. of Participants
1	2	3	4	5
A : Development:				
1.	Working Group Meeting for Development of Curriculum on Vocational Guidance and Counselling	15 to 19 April 1996	PSSCIVE, Bhopal	7
2.	Working Group Meeting for Review and Updating of existing Curriculum of Library and Information Science	6 to 7 May 1996	PSSCIVE, Bhopal	3
3.	Working Group Meeting for Development of Instructional Material of Entrepreneurship Development	19 to 21 July 1996	PSSCIVE, Bhopal	9
4.	Working Group Meeting to finalize the Guidelines, Curriculum and Training Modules on Vocational Guidance and Counselling	23 to 26 July 1996	PSSCIVE Bhopal	8
5.	Working Group Meeting for revision of Curriculum in the area of Marketing and Salesmanship	5 to 9 August 1996	PSSCIVE, Bhopal	8
6.	Working Group Meeting for development of Competency Based Curriculum on Processing of Agriculture and Forest Produce	5 to 9 August 1996	PSSCIVE Bhopal	8
7.	Working Group Meeting for development of Competency based Curriculum on watershed Management	5 to 9 August 1996	PSSCIVE Bhopal	7
8.	Working Group Meeting on Development of Instructional Material in Crop Production	16 to 20 August 1996	PSSCIVE Bhopal	

Contd.....

1	2	3	4	5
9.	Working Group Meeting for Revision of Curriculum on Plant Protection	19 to 23 August 1996	PSSCIVE, Bhopal	5
10.	Working Group Meeting for development of Instructional Material for Pre-Vocational courses in the Area of Agriculture	19 to 20 September 1996	PSSCIVE, Bhopal	10
11.	Working Group Meeting for development of Instructional Material of Entrepreneurship Development for Class XII	17 to 19 September 1996	NCERT, New Delhi	7
12.	Working Group Meeting for development of Instructional Material in Bakery and Food Preservation	24 to 27 September 1996	Jaipur	3
13.	Working Group Meeting for Development of Instructional Material for Class XII and Review of Materials developed for Class XI in Mech. Technology.	3 to 7 October 1996	PSSCIVE, Bhopal	5
14.	Working Group Meeting for development of Instructional Material for Pre-Vocational Courses in Home Science (i) Handicraft and (ii) Designing and Making of Children's Garments	7 to 12 October 1996	PSSCIVE, Bhopal	16
15.	Working Group Meeting for development of Instructional Material for Vocational Courses on Inland Fisheries.	14 to 18 October 1996	PSSCIVE Bhopal	5
16.	Working Group Meeting for development of Instructional Material for Neo-Literates.	4 to 5 November 1996	PSSCIVE, Bhopal	11
17.	Working Group Meeting for Revision of Curriculum and Development of Instructional Material on Sericulture	26 to 30 November 1996	Bangalore	9

1	2	3	4	5
18.	Working Group Meeting for Review and Revision of Instructional Material on Horticulture	9 to 12 December 1996	Bangalore	7
19.	Working Group Meeting for Review and Revision of Curriculum on Travel and Tourism Techniques	16 to 20 December 1996	PSSCIVE, Bhopal	4
20.	Working Group Meeting - Review and Revision of Curriculum "Clothing for the Family"	6 to 7 January 1997	PSSCIVE, Bhopal	5
21.	Working Group Meeting - Preparation of Instructional Material for Adults as part of Continuing Education in Vocational Education	17 to 21 January 1997	Howrah	11
22.	Working Group Meeting - Development of Instructional Material for Pre-Vocational Courses for Retailing and Shorthand Modules	22 to 25 January 1997	Indore	9
23.	Working Group Meeting to finalise Instructional Material on Vocational Guidance and Counselling	27 to 31 January 1997	PSSCIVE, Bhopal	8
24.	Working Group Meeting to revise Guidelines Document on "Handbook for Vocational Survey Workers	24 to 28 February 1997	PSSCIVE, Bhopal	14
25.	Working Group Meeting for Development of Guidelines for Accreditation of NGOs and Vocational Programmes	3 to 5 March 1997 ..	PSSCIVE, Bhopal	6
26.	workshop to revise Guidelines Document "Guidelines for Organisation of In-service Teachers Training Programmes for Vocational Teachers	6 to 8 March 1997	PSSCIVE, Bhopal	5

1	2	3	4	5
27.	working Group Meeting for developing Curriculum in Non-farm Sector Management	10 to 11 March 1997	PSSCIVE, Bhopal	6
28.	Working Group Meeting - Preparation of Instructional Material for Adults as part of Continuing Education in Vocational Education	10 to 14 March 1997	Thiruvananthapuram	14
29.	Working Group Meeting - Review and Revision of Competency based Curriculum in Plastic Technology	10 to 14 March 1997	PSSCIVE, Bhopal	4
30.	Working Group Meeting - Review and Revision of Curriculum in Air-Conditioning and Refrigeration	10 to 14 March 1997	PSSCIVE, Bhopal	2
31.	Working Group Meeting - Development of Instructional Material in Inland Fisheries	17 to 21 March 1997	PSSCIVE, Bhopal	1
32.	Working Group Meeting - Review and Revision of Curriculum on Repair, Maintenance and Rewinding of Electrical Motor	31 March to 5 April 1997	PSSCIVE, Bhopal	6

B. Training:

33.	Short Term Teachers Training Programme in Entrepreneurship Development	20 to 31 May 1996	Aurangabad	24
34.	Short Term Teachers Training Programme for vocational Teachers in Building Maintenance	20 May to 15 June 1996	Pune	21
35.	Teachers Training Programme for Vocational Teachers of Polytechnics	27 May to 22 June 1996	Bombay	7

Contd.....

1	2	3	4	5
36.	Teachers Training Programme for Vocational Teachers in Bakery and Confectionery	27 May to 23 June 1996	Bhopal	8
37.	Teachers Training Programme for Vocational Teachers of Accountancy	27 May to 24 June 1996	New Delhi	24
38.	Teachers Training Programme for Vocational Teachers of Computer Science	3 June to 28 June 1996	Pondicherry	19
39.	Teachers Training Programme for Vocational Teachers of Office Management	3 to 28 June 1996	Goa	33
40.	Training Programme for Trainers/Resource Persons of Generic Vocational Course	3 to 14 June 1996	PSSCIVE, Bhopal	21
41.	Teachers Training Programme for Vocational Teachers of Vocational Guidance and Counselling	17 June to, 3 July 1996	PSSCIVE, Bhopal	12
42.	Short Term Training Programme of Key functionaries of States on Vocational Education	5 to 18 July 1996	PSSCIVE, Bhopal	22
43.	Short-term Teachers Training Programme for Vocational Teachers in Entrepreneurship Development	2 to 16 January 1997	PSSCIVE, Bhopal	28
<u>C. Extension:</u>				
44.	Orientation Programme for State officials/Key Functionaries/Principals/Education Officers on Vocationalisation of Education in Pondicherry	19 to 22 August 1996	Pondicherry	34
45.	Orientation Programme for the State officials/key functionaries/education Officers/ Principals on Vocationalization of education of bihar state	20 to 25 August 1996	Patna	58
46.	Orientation Programme for State officials/key functionaries/Principals/ on vocational education in bihar state	23 to 26 October 1996	Bikaner	32

1	2	3	4	5
47.	Orientation Programme on Pre-Vocational Education for the Key Functionaries of North-Eastern States	5 to 8 November 1996	Imphal	34
48.	Orientation Programme on Vocational Education for the State Officials/Key Functionaries/Principals/Education Officers of Karnataka	3 to 6 December 1996	Ujire	34
49.	Orientation Programme on Vocational Education for the Key Functionaries/Principals/Education Officers of Tamil Nadu State	3 to 6 December 1996	Coimbatore	49
50.	Orientation Programme for the Key Functionaries of Maharashtra State on Vocational Education	1 to 4 January 1997	Aurangabad	31
51.	Orientation Programme for the Key Functionaries of Haryana on Vocational Education	6 to 9 January 1997	Chandigarh	33
52.	Orientation Programme for the Key Functionaries of Orissa State	25 to 28 February 1997	Bhubaneshwar	50
53.	Orientation Programme on Pre-Vocational Education for the Key Functionaries of Northern States (6 States)	18 to 20 March 1997	Lucknow	30
54.	National Meeting for the Employers of Agriculture Production	2 to 4 September 1996	Hyderabad	33
55.	National Meeting on Human Resource for Food Processing Industries	3 to 5 December 1996	Bangalore	26
56.	National Meeting on Information Technology	18 to 20 December 1996	Mumbai	20
57.	National Seminar on Apprenticeship Training Self Employment and Placement	29 to 31 January 1997	NCERT New Delhi	25

1	2	3	4	5
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D: Evaluation:

58. Evaluation of NGOs in Delhi State	12 to 15 November 1996	Delhi	-
59. Evaluation of NGOs of the State of Maharashtra	14 to 17 December 1996	Pune, Mumbai	-
60. Evaluation of NGOs in Uttar Pradesh	16 to 24 December 1996	Nawabganj (Dist:- Gonda), Faizabad, Azamgarh, Peepalpur, Pratapgarh, Firozabad.	
61. Evaluation of NGOs in Orissa	17 to 20 December 1996	Bhubaneshwar	-
62. Evaluation of NGOs in Punjab state	17 December 1996	Ludhiana	
63. Evaluation of NGOs in Rajasthan	23 to 27 December 1996	Bharatpur/ Sangaria	-
64. Evaluation of NGOs in Assam and Manipur	3 to 7 January, 1997 and 15 January 1997	Assam/Manipur	-
65. Evaluation of NGOs in West Bengal	14 to 25 February 1997	Karnal and Kandhala	-
66. Evaluation of NGOs in West Bengal	14 to 25 February 1997	Calcutta	-
67. Evaluation of NGOs in Bihar	21 to 28 February 1997	Patna, Katiyar, Madhupura and Sitamadhi	-
68. Evaluation of NGOs in Bihar	12 to 17 March 1997	Kailwar/Ranchi	-
69. Evaluation of NGOs in Kerala	21 to 25 March 1997	Trivendrum/ Calicut and Ernakulum	-

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VIII

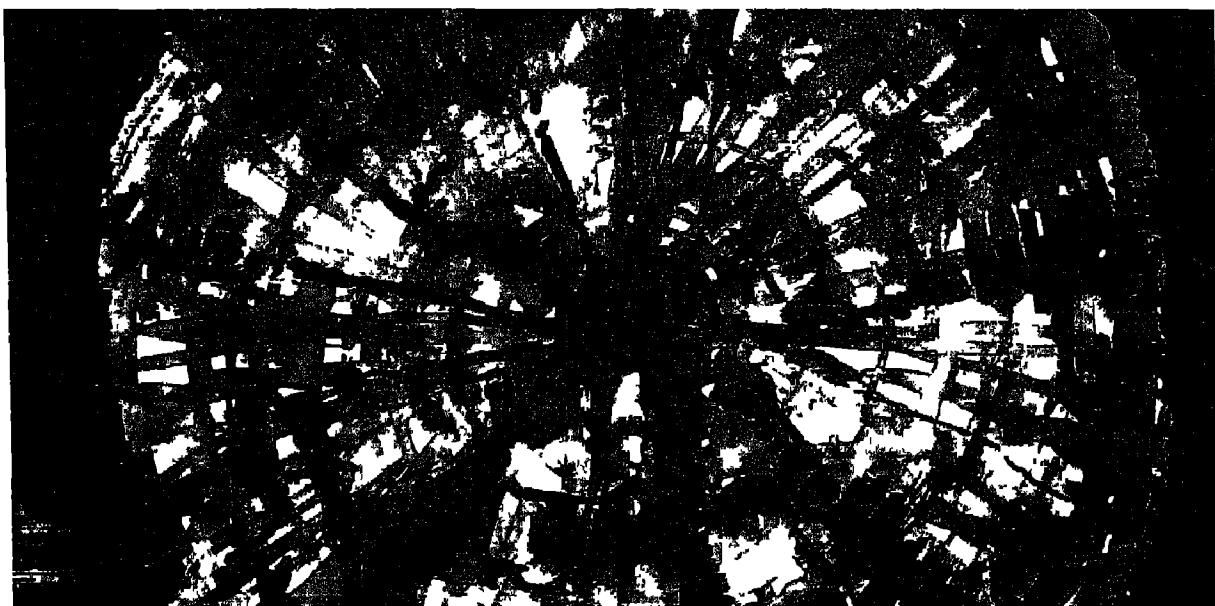
VOCATIONALIZATION OF EDUCATION

1997-98

9

IMPROVEMENT of Work Education at all stages of school education has been a major concern of the NCERT. Pandit Sunderlal Sharma Central Institute of Vocational Education (PSSCIVE), Bhopal is the national apex research and development organisation in the field of Vocational Education. It is also the only centre of International Project on Technical and Vocational Education (UNEVOC) in India, which is administered by the UNESCO. The aim of the PSSCIVE is to provide R&D and technical support to a variety of vocational education programmes. The important functions of the PSSCIVE include, to advise and assist the Ministry of Human Resource Development (MHRD), Government of India, State Governments and Union Territory Administrations in the implementation of Vocational Education and Work Experience Programme (VEP and WEP) to function as the technical wing of the Joint Council of Vocational Education (JCVE) and the MHRD on all matters relating to VEP and WEP, to promote, supervise and guide the establishment of comprehensive management system for Vocational Education at different levels, i.e. national, state, district and institutional, to function as overall resource institution

in the area of Vocational Education and Work Experience both formal and non-formal, to study and monitor the educational requirements of the country as a whole in regard to preparing manpower for development; to develop need-based vocational programmes for neo-literates and other special groups, to undertake, guide and co-ordinate curriculum and instructional material development, staff development and training, dissemination of literature and research findings, monitoring and evaluation and to offer consultancy to State Governments in the area of VEP and WEP; to ensure the uniformity of pattern in the context of national system of vocational education and to maintain quality standards including those of teaching professionals at all levels, to promote excellence at all levels of various types of vocational education programmes both formal and non-formal throughout the country to cater to the needs of research and other studies in the field of VE and WE in the related and supportive areas, to establish equivalence of certificate and to accredit vocational institutions and programmes while keeping the quality parameters in view, to promote a national, regional and international network of vocational



education information systems and services based on voluntary cooperation of related and other organisations and facilitate effective access to information, and to look after the international aspects of vocational education and human resources development.

Development

Vocational Curriculum

Curricula on Clothing for the Family, Seed Production Technology, Co-operation, Taxation, Computer Science, Medical Laboratory Technician, Purchasing and Store-keeping, Electronic Technology, and X-Ray Vocational Courses were revised. New Vocational Education curricula on Rural Informatics Management, Handicrafts, Computer Aided Drawings and Drafting and Computer Aided Multi-Media Materials were developed. A Curriculum Addendum on Integration of Environmental Components with Vocational Curriculum in the area of Agriculture was also brought out.

Development of Instructional Materials for Vocational and Pre-Vocational Courses (Neo-Literate Adults)

Instructional Materials pertaining to the Vocational Courses in the area of Marketing and Salesmanship, Institutional House Keeping, Crop-Production, Catering and Restaurant Management, Inland Fisheries, and Automobile Engineering Technology were developed. Training Modules for Vocational Guidance Teachers were prepared. Instructional Materials on Cosmetic Production for pre-vocational education were also developed. Ten manuscripts of materials on vocational education and 10 manuscripts of materials on Pre-Vocational Education have been sent for publication. Twelve books/manuscripts belonging to the following seven vocational courses have also been sent to the State Governments, SCERTs, Boards of Secondary Education in the States/UTs.

- Dairying
- Commercial Garment Designing and Making
- Textile Designing
- Horticulture
- Poultry Farming
- Bakery and Confectionery
- Crop Production

Neo-literates and school drop-outs form a large group of youth in the country which is looking for gainful employment and training. Instructional Materials in the area of Inland Fisheries, Protected Cultivation, Garment Finishing and Decoration, Repair and Maintenance of Solar Cooker and Handpump, Processing and Production of Food Items through Dehydration, and Conservation and Management of Soil and Water for Sustainable Development have been developed for training of Neo-literate

Framework for a System of National Vocational Qualifications

A draft framework for a system of National Vocational Qualifications Testing and Certification of Competencies for various levels of Occupations in Dairying has been developed. The framework also includes curricula for 90 occupations.

Training

Teachers Training Programmes

In order to improve instruction in the vocational schools, 13 teachers training programmes in the area of Creche and Pre-School Management, Commercial Garment Designing and Making, Auditing and Accounting, Vocational Guidance and Counselling, Office Management, Environmental Education, Computer Science, Entrepreneurship Development, and Repair, Maintenance and Rewinding of Electric Motors were organised. One training programme for the Generic Vocational Course (GVC) Resource Persons and two programmes exclusively for the teachers of Madhya Pradesh in the area of Engineering and Technology and Business

and Commerce were also organised.

Training Programmes for the Key Functionaries of States on Vocational Education

A short-term training programme was organised for key functionaries of the States of Andhra Pradesh, Goa, Orissa, Maharashtra and Bihar to bring about conceptual clarity with regard to implementation of the programmes of vocational education and pre-vocational education

Extension

Orientation Programmes

Fifteen orientation programmes on Vocational Education for more than 500 key functionaries from various States and UTs were organised. One orientation programme was exclusively organised for 24 teachers of the Demonstration Schools of all the four Regional Institutes of Education. One orientation programme was organised for the teachers of Assam. An orientation-cum-development programme on paper setting in vocational courses was organised at the instance of the SCERT, Manipur. Two orientation programmes on pre-vocational education were conducted for 93 key functionaries of Gujarat and Bihar. An orientation programme on pre-vocational education was organised at the request of the Government of Maharashtra. In a national seminar on Economic Empowerment of Women through Vocational Education organised by the NCERT, 28 representatives from womens' organisations, NGO's, educational institutions, etc., participated

Foundation Day Awards

On the occasion of the fourth foundation day celebration of the PSSCIVE, Bhopal held on 5 July 1997, distinguished educationists and 200 invitees including 39 recipients of different awards

participated. The following awards for promotion of Vocational Education programme were given.

1. Best Full-Time Vocational Teacher Award (One for each state)
2. Best Vocational School Award (One for each state)
3. Best School-Industry Linkage Award (One for each state)
4. Top Two Achievers Awards (Two per state based on the result of the Higher Secondary Examination in the state)

A Memorandum of Understanding (MoU) was signed by the Commissioner of Public Instructions, Madhya Pradesh and the Joint Director, PSSCIVE for 14 Lab Schools in Bhopal and neighboring areas. Several documents (curricula, instructional materials, guidelines etc)and video films developed by the PSSCIVE were released on this occasion. An exhibition of PSSCIVE publications, vocational quiz and cultural programme were also organised on this occasion. Prizes were given to the winners of vocational quiz and cultural programme

Career Conferences in Lab. Schools

Career Conferences in 14 Lab. Schools in Bhopal and neighbouring areas were organised during 15 December 1997 to 23 January 1998 (14 days). The main objectives of this programme were. (i) to create awareness about the vocational courses amongst the students of Class X, (ii) to help the vocational students in their future career planning, and (iii) to help the vocational teachers in actual administration of the scheme. A team of PSSCIVE faculty members, one each from all the six divisions, visited the schools and participated in the conference.

Journals

One issue each of the *Indian Journal of Vocational Education* and the *Quarterly Bulletin of Vocational Education* was

published. Three issues of the Bulletin were under print. The Quarterly Bulletin of Vocational Education is sent to over 4000 schools in the country and state key functionaries.

Extension Lecture Series

For professional enrichment of the faculty and sharing of experiences, one extension lecture by an eminent educationist and three lectures by the internal faculty members of PSSCIVE on different aspects of vocational education were organised.

Exhibitions

Three exhibitions for popularisation of Vocational Education were organised at the Gandhi Medical College, Bhopal, the Regional Institute of Education, Bhopal, and the Bhagwan Kala Kendra (Vocational Training Centre run by the Nav Yuvak Parishad), Barragarh, Bhopal. Various materials on vocational education such as competency-based vocational curricula, instructional materials, guidelines, reports and popularisation folders of various vocational courses were displayed. About 2500 students of various schools visited the exhibitions.

Research

The following research projects in Vocational Education are in progress:

1. Comparative Study of Implementation of General Foundation Courses in Different States
2. Benchmark Survey of Vocational Guidance in States
3. Status Study of Vocational Pass-outs of Business and Commerce Based Vocational Courses in India
4. Career Aspirations of Girls in Urban and Rural Societies vis-a-vis Vocational Education
5. Establishment of School Industry Linkage in Secondary Vocational

Schools — Action Research.

6. Comparative Evaluation of Quality and Standard of Vocational Curricula and Instructional Materials in Selected States

Evaluation

The Joint Evaluation Team (JET), constituted to evaluate the work of the voluntary organisations running vocational courses and receiving grants from the MHRD, visited two NGOs of Madhya Pradesh at Gwalior and submitted its report to the MHRD.

International Relations

The PSSCIVE of NCERT as UNEVOC Centre for India has been very active as regards its role and contributions in the international arena through UNEVOC activities under UNESCO. Its faculty members participated and contributed in five UNEVOC activities outside India. The NCERT has initiated action for implementation of the Cultural Exchange Programme (CEP) with Russia in the context of exchange of information and experts in Vocational Education.

Regional Level Inputs to Vocational Education

The RIE, Ajmer conducted two training programmes for +2 vocational teachers in Accountancy and Office Management/ Secretarial Practice and developed Practice Sets in Financial Accounting. The RIE, Bhubaneswar developed a training package on Guidance and Counselling for Principals of Vocational Schools.

Reports and Other Materials Brought Out During 1997-98

General Publications

1. Quarterly bulletin of Vocational Education, Issue-IV, Vol.II January-March 1997
2. Quarterly bulletin of Vocational

Education, Issue-I, Vol. IV April-June, 1997

3. Indian Journal of Vocational Education, Issue-II, Vol- I

Curriculum Development/Revision

4. Competency Based Vocational Curriculum on Horticulture

5 Competency Based Vocational Curriculum on Textile Designing

6 Competency Based Vocational Curriculum on Building Maintenance

7 Competency Based Vocational Curriculum on Inland Fisheries

8 Competency Based Vocational Curriculum on Dairying

9 Competency Based Vocational Curriculum on Rural Engineering Technology

10 Competency Based Vocational Curriculum on Crop Production

11 Competency Based Vocational Curriculum on Maintenance and Repairs of Electrical Domestic Appliances

12 Competency Based Vocational Curriculum on Automobile Engineering Technology

13 Competency Based Vocational Curriculum on Repair of Power Driven Farm Machinery

14 Competency Based Vocational Curriculum on Learning for Productivity

15 Competency Based Vocational Curriculum on a Strategic Plan for Vocationalisation of Education

16 Competency Based Vocational Curriculum on Institutional House Keeping (xeroxed)

17. Competency Based Vocational Curriculum on Rural Informatic Management (xeroxed)

18 Competency Based Vocational Curriculum on Mechanical Engineering Technology (xeroxed)

19 Competency Based Vocational Curriculum on Office Management (xeroxed)

20 Competency Based Vocational Curriculum on Banking Management (xeroxed)

21 Competency Based Vocational Curriculum on Bakery and Confectionary (xeroxed)

22. Competency Based Vocational Curriculum on Catering and Restaurant Management (xeroxed).

Posters 1 On Girls' Education
2 Health and Paramedical
3 Folders on Agriculture

Instructional Materials/Textbooks/Practical Manuals

1 Institutional House Keeping (xeroxed)

2 Feeds and Feeding of Dairy Animals: Textbook for Class XII (xeroxed)

3 Poultry Diseases and their Control . Textbook for Class XII (xeroxed)

4. Instructional Material of Crop Production . Textbook for Class XI (xeroxed)

5. Elements of Crop Production: Practical Manual for Class XI (xeroxed)

6 Post-Harvest Technology . Practical Manual for Class XII (xeroxed)

7 Post-Harvest Technology . Textbook for Class XII (xeroxed)

8. Fundamentals of Horticulture. Textbook for Class XI (xeroxed)

9. Clothing Construction: Textbook for Class XI (xeroxed)

10. Advanced Designing . Textbook for Class XII (xeroxed)

11 Advanced Weaving, Dyeing and Printing Material Practical Manual for Class XII (xeroxed)

12 Basic Confectionery: Textbook for Class XI (xeroxed)

13. Aquaculture · Textbook for Class XI (xeroxed)
14. CGDM-Marketing and Unit Management: Practical Manual for Class XII (xeroxed)
15. Poultry Housing and Management: Textbook for Class XI (xeroxed)
16. Basic Design to Textile Designing (xeroxed)
17. Textile Craft . Practical Manual for Class XI (xeroxed)
18. Aparel Designing · Practical Manual Class XI (xeroxed)

Pre-Vocational Courses

1. Repair and Maintenance of Tillage Sowing Equipment (xeroxed)
2. Repair and Maintenance of Plant Protection (xeroxed)
3. Repair and Maintenance of Power Thresher (xeroxed)
4. Tie and Dye (xeroxed)
5. Batik (xeroxed)
6. Soft Toys (xeroxed)
7. Bamboo Craft (xeroxed)
8. Doll Making (xeroxed)



WORKSHOPS/MEETINGS/SEMINARS/CONFERENCES/TRAINING/ORIENTATION PROGRAMMES ORGANISED BY
Pandit Sunderlal Sharma Institute of Vocational Education (PSSCIVE), Bhopal

1	2	3	4	5
A. Development :				
1.	WGM-Review & Revision of Curriculum "Clothing for the Family".	14-04-97 to 19-04-97	PSSCIVE, Bhopal	11
2.	WGM-Development of Instructional Material in the area of Marketing & Salesmanship	29-04-97 to 03-05-97	Goa	08
3.	WGM-Development of Curriculum addendum on integration of Environmental components with Voc. Curricula in the area of Agriculture.	12-05-96 to 16-05-97	PSSCIVE, Bhopal	08
4.	Finalization of Trg. Modules for Voc. Guidance Teachers.	06-05-97 to 08-05-97	PSSCIVE, Bhopal	03
5.	WGM-Development of Instructional Material for Institutional House Keeping Voc. Course.	23-07-97 to 27-07-97	PSSCIVE, Bhopal	11
6.	WGM-Development of Competency based curriculum on "Development of Computer aided Multimedia Material".	28-07-97 to 29-07-97	PSSCIVE, Bhopal	05
7.	WGM-Identification of skills for various level of Occupations in Dairying.	04-08-97 to 08-08-97	PSSCIVE, Bhopal	08

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8.	WGM for Development of Curriculum in the area of Rural Informatic Management	19-08-97 to 24-08-97	Ranchi, Bihar.	09
9.	National Planning meet for production of Intervention Materials for students with special focus on girls to encourage increased participation in Home Science Vocational course & thereby economic empowerment.	27-08-97 to 29-08-97	Udaipur, Rajasthan	07
10.	WGM for development & finalisation of Instructional Material in Crop Production.	18-08-97 to 21-08-97	PSSCIVE, Bhopal	01
11.	WGM for Review & Revision of the existing competency based curriculum on " Seed Production Technology".	01-09-97 to 04-09-97	PSSCIVE, Bhopal	04
12.	WGM for Development of Instructional Material in the area of "Marketing & Salesmanship"	09-09-97 to 13-09-97	Allahabad	07
13.	State of art - Study of schools in selected states running food preservation and processing Voc. course.	09-09-97 to 18-09-97	Gujarat State	--
14.	WGM - Development of Instructional Material (Textbook & Practical Manual) for Voc. Course in Catering & Restaurant Management.	22-09-97 to 26-09-97	I.H.M, Bhopal	05
15.	WGM for Development of Instructional Material for "Cosmetic Production" Pre Vocational course.	22-09-97 to 26-09-97	PSSCIVE, Bhopal	04
16.	WGM Revision of Competency based Curriculum on Co-operation.	06-10-97 to 10-10-97	Trichur	09

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17.	WGM - for identification of skills for various level of occupation in Dairying - Dairy Processing Workshop-II	07-10-97 to 10-10-97	PSSCIVE, Bhopal	08
18.	WGM - Review & Revision of competency based curriculum in Taxation.	24-11-97 to 28-11-97	Bhubane- shwar	08
19.	WGM - Development & finalisation of Instructional Material for Institutional House Keeping Vocational Course(XI & XII)	01-12-97 to 05-12-97	PSSCIVE, Bhopal	07
20.	WGM - Dev. of new curriculum on Computer Aided Drawing and Drafting.	10-12-97 to 11-12-97	PSSCIVE, Bhopal	02
21.	WGM - Development of Curriculum on "Handicraft"	18-12-97 to 19-12-97	PSSCIVE, Bhopal	04
22.	WGM - Dev. of Instructional Material of "Processing and Production of Food items through Dehydration for Neo-Literates.	23-12-97 to 27-12-97	Pantnagar	03
23.	WGM - Review & Revision of Curriculum on Computer Science.	05-01-98 to 09-01-98	PSSCIVE, Bhopal	05
24.	WGM - Development of Instructional Material for the training of Neo-literates in Inland fisheries (phase I)	12-01-98 to 16-01-98	PSSCIVE, Bhopal	03
25.	WGM - for the state officials on Vocational Curriculum adaptation/ adoption in the implementing states/ UTs.	19-01-98 to 20-01-98	PSSCIVE, Bhopal	13

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26.	WGM - Development of Instructional Material for the training of Neo-literates - Conservation & Management of soil and water for sustainable Development (Phase-II)	06-02-98 to 10-02-98	PSSCIVE, 03 Bhopal	
27.	WGM - Revision of Curriculum on Medical Laboratory Technician Course	03-03-98 to 06-03-98	PSSCIVE, 04 Bhopal	
28.	WGM - Revision of Curriculum on Purchasing and Store Keeping	16-03-98 to 19-03-98	PSSCIVE, 06 Bhopal	"
29.	WGM - Development/ Review of Instructional Material in Automobile Engg. Technology	17-03-98 to 21-03-98	PSSCIVE, 02 Bhopal	
30.	WGM - for development of Instructional Material to in Garment finishing and Decoration for Neo-literates	23-03-98 to 27-03-98	PSSCIVE, 02 Bhopal	
31.	WGM - Review & Revision of Curriculum on "Electronic Technology"	23-03-98 to 27-03-98	PSSCIVE, 06 Bhopal	
32.	WGM for Revising the existing Vocational Curriculum of X-Ray course	30-03-98 to 02-04-98	Delhi 04	
33.	WGM - Development of Instructional Material in the area of Marketing & Salesmanship	30-03-98 to 03-04-98	Mumbai 08	

Extension :

34.	Orientation Prog. on Vocational Education for the Teachers of Demon- stration schools (Regional Institutes of Education)	21-04-97 to 25-04-97	PSSCIVE, 24 Bhopal
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35.	Orientation Prog. on Vocational Guidance and Counselling for the Key Functionaries of M.P., Rajasthan, Delhi and Gujarat.	22-04-97 to 24-04-97	PSSCIVE, Bhopal	13
36.	Foundation Day Awards Programme	05-07-97	PSSCIVE, Bhopal (awardees)	39
37.	Orientation Prog. on Vocational Guidance and Counselling for the key functionaries of Kerala, Pondicherry & T.N.	08-07-97 to 10-07-97	Thiruvananthapuram	54
38.	Orientation Prog. on Voc. Guidance and Counselling for the key functionaries of states of Andhra Pradesh, Karnataka, Goa & Maharashtra.	14-07-97 to 16-07-97	RIE, Mysore	34
39.	Orientation Prog. on Pre-Voc. Education for the key functionaries of Gujarat State.	28-07-97 to 30-07-97	Ahmedabad	62
40.	Orientation Prog. on VE for key functionaries/officials of the state of Rajasthan	19-08-97 to 22-08-97	Udaipur	38
41.	Orientation Prog. on VE for the key functionaries of for Bihar State.	19-08-97 to 22-08-97	Patna	38
42.	Orientation Prog. on Vocational Ed. for the key functionaries of Andhra Pradesh.	19-08-97 to 22-08-97	Hyderabad	42
43.	Orientation Prog. on Vocational Guidance & Counselling for the key functionaries of J&K, H.P., Harayana, Punjab, Chandigarh, U.P. and Bihar.	04-11-97 to 06-11-97	Chandigarh	25

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44.	Orientation Prog. on V.E. for the State officials of Uttar Pradesh.	25-11-97 to 28-11-97	Lucknow	37
45.	Orientation Prog. on V.E. for the key functionaries of Maharashtra State	17-11-97 to 20-11-97	Pune	36
46.	Orientation Prog. on Pre-Voc. Education for the key functionaries of Bihar	09-12-97 to 12-12-97	Patna	31
47.	Orientation Prog. on VE for the key functionaries of Kerala state	18-12-97 to 19-12-97	Thiruvananth- -apuram	44..
48.	National Seminar on "Economic Empowerment of Women through VE"	22-12-97 to 24-12-97	New Delhi	28
49.	Career Conferences of Lab schools in Bhopal Division.	15-12-97 to 23-01-98	14 lab schools of Bhopal and neigbouring areas.	
50.	Orientation Prog. on Voc. Education for the key functionaries of Tamil Nadu State.	30-12-97 to 02-01-98	Madurai	50
51.	Orientation Prog. on Vocational Education for the key functionaries of M.P. state	30-12-97 to 02-01-98	PSSCIVE, Bhopal	24
52.	Orientation Prog. on Vocational Education for the key functionaries of Assam State	05-01-98 to 08-01-98	Guwahati	25
53.	Conference of State Officials of North Eastern States	07-01-98 to 08-01-98	Guwahati	15
54.	Orientation Prog. on Vocational Education for the key functionaries of Gujarat State	06-09-98 to 09-03-98	Ahmedabad	35

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Training :				
55.	Short Term Teachers Training Prog. for the Voc. Teachers of Accounting and Auditing.	14-05-97 to 03-06-97	Hyderabad	17
56.	Short Term Teachers Training Prog. for Voc. Teachers of Commercial Garment Designing and Making.	12-05-97 to 06-06-97	Women's Polytechnic, Bhopal.	12
57.	Short Term Teachers Training Prog. for Voc. Teachers of Creche and Pre-school Management Course.	09-05-97 to 05-06-97	Coimbatore	07
58.	Short Term Teachers Training Prog. on Voc. Guidance & Counselling of M.P., U.P. & Gujarat.	27-05-97 to 16-06-97	PSSCIVE, Bhopal	11
59.	Short Term Teachers Training Prog. for Voc. Teachers of Office Management	27-05-97 to 26-06-97	New Delhi	14
60.	Short Term Teachers Training Programme in Environmental Education.	02-06-97 to 14-06-97	R.B.S. College, Agra.	15
61.	Short Term Vocational Teachers Training in Computer Science.	09-06-97 to 30-06-97	MACT, Bhopal.	10
62.	Training Programme for Trainers/ Resource persons of Generic Vocational Course.	09-06-97 to 20-06-97	PSSCIVE, Bhopal	09
63.	Short Term Training for the Vocational Teachers of M.P. 'Engg. & Tech Group) Phase-I	16-06-97 to 21-06-97	PSSCIVE, Bhopal	21
64.	Short Term Training for the Vocational Teachers of M.P. 'Business & Commerce Group) Phase-II	23-06-97 to 28-06-97	PSSCIVE, Bhopal	29

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65.	Short Term Teachers Training Programme for Entrepreneurship Development.	23-06-97 to 02-07-97	PSSCIVE, Bhopal	16
66.	Short Term Training Programme of the key functionaries on Voc. Education	08-07-97 to 21-07-97	PSSCIVE, Bhopal	07
67.	Short Term Teachers Training Programme on Repair Maintenance and Rewinding of Electrical Motors.	11-11-97 to 29-11-97	Pune	22
68.	Short Term Teachers Training Programme in Entrepreneurship Development for Maharashtra.	18-11-97 to 02-12-97	Aurangabad	27
Evaluation				
69.	Evaluation of NGOs in Madhya Pradesh	12-4-97 to 13-4-97	Gwalior	--

IX

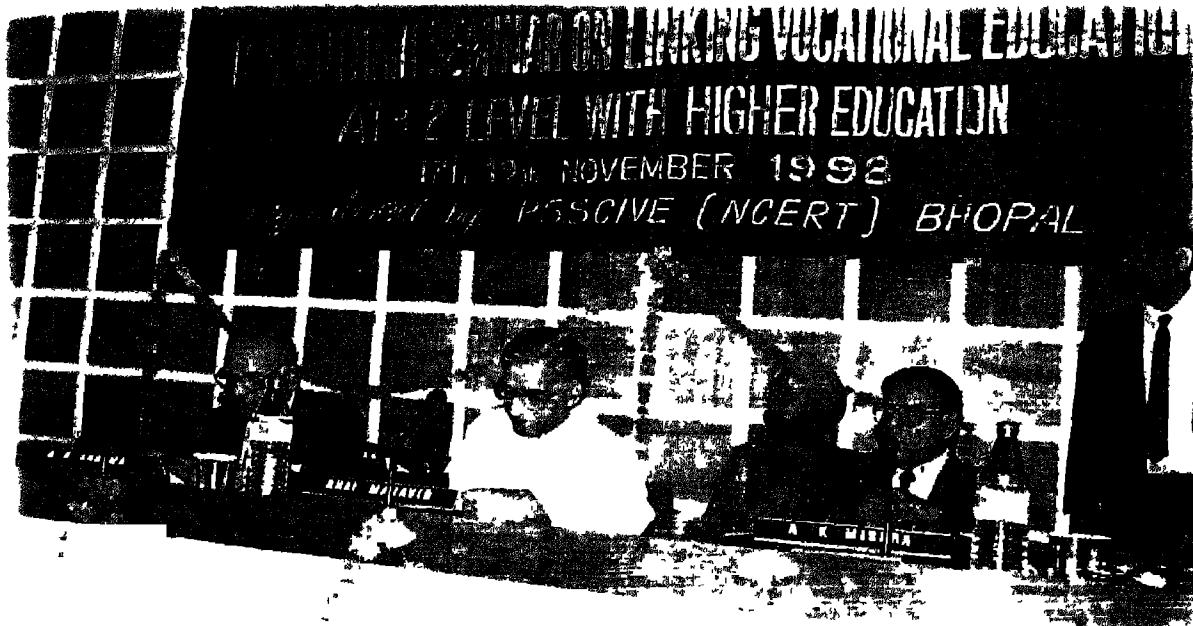
VOCATIONALIZATION OF EDUCATION

1998-99

IX VOCATIONALIZATION OF EDUCATION

IMPROVEMENT of Work Education at all stages of school education has been a major concern of the NCERT. Pandit Sunderlal Sharma Central Institute of Vocational Education (PSSCIVE), Bhopal, a constituent of the NCERT, is the national apex research and development organisation in the field of Vocational Education. The important functions of the PSSCIVE include to advise and assist the MHRD, Government of India, State Governments and Union Territory Administrations, on the implementation of Vocational Education (VE) and Work Experience (WE) programmes, to function as the technical wing of the Joint Council of Vocational Education and MHRD on all matters relating to VE and WE, to promote, supervise and guide the establishment of comprehensive management system for vocational education at different levels, i.e. national, state, district and institutional, to function as an overall resource institution in

the area of vocational education and work experience, both formal and non-formal; to study and monitor the vocational education requirement of the country as a whole with regard to preparing manpower for development; to undertake, guide and coordinate curriculum development, training, dissemination of information, extension, research, monitoring and evaluation and to offer consultancy to State Governments in the area of VE, both formal and non-formal, to ensure the uniformity of patterns in the context of national system of vocational education and to maintain quality and standards, including those of teaching professionals at all levels, to promote excellence at all levels of various types of vocational education programmes, i.e. formal and non-formal throughout the country, to cater to the needs of research and other studies in the field of vocational education and work experience and in related and supportive areas, to establish equivalence of



certificates and to accredit vocational institutions and programmes keeping the quality parameters in view; to promote a national, regional and international network of vocational education information systems and services based on voluntary cooperation of related and other organisations and to look after the international aspects of vocational education and human resource development

Research

On-the-spot study of implementation of VEP under CSS has been conducted for Tamil Nadu. This study has assessed the strengths and weaknesses of the programme and provided remedial suggestions and recommendations for taking up corrective measures in the state.

The following research projects on vocational education are in progress

- Comparative Study of Implementation of General Foundation Courses in certain States
- Benchmark Survey of Vocational Guidance in States
- Status Study of Vocational Pass-outs of Business and Commerce-based Vocational Courses in India
- Career Aspirations of Girls in Urban and Rural Societies vis-a-vis Vocational Education
- Establishment of School-Industry Linkage in Secondary Vocational Schools — Action Research
- Comparative Evaluation of Quality and Standard of Vocational Curricula and Instructional Material in Selected States

- Comparative Study of the Status and Effectiveness of Vocational Teaching Learning in Agriculture
- A Case Study on School-Industry Linkage of Some Vocational Institutions of Maharashtra
- Effect of On-the-Job-Training on the Performance of Vocational Students of Punjab
- Significance of Home Science Vocational Courses on Economic Empowerment of Women
- Role of Teacher Arrangement in Development of Vocational Skills in the 10+2 Level Students.



Development

Development and Revision of Curricula of Vocational Courses

Curriculum of Fish Processing Technology, Insurance and Software Applications were revised. New Vocational Education

Curriculum on Telecommunication Technology, PC Assembly and Hardware Maintenance, Transport Service Maintenance, Agri-Business, Bio-Medical Equipment Maintenance Technician, and Computer Assembly and Maintenance were developed. A curriculum and training module on vocational guidance and counselling, a curriculum addendum on integration of environmental components with vocational curricula in the area of Engineering and Technology, and a Framework of National Vocational Qualification in Crop Production and Building Construction have also been developed during the year under report

Development of Instructional Material for Vocational and Pre-Vocational Courses

The instructional material of pre-vocational education for the neo-literate on Ceramic Work was developed and is sent to the implementing states. Instructional material on Medical Laboratory Technician Course was revised. Fifteen books/manuscripts belonging to six vocational courses have also been sent to various states. Twenty manuscripts of instructional material on Vocational Education and three manuscripts of material on Pre-Vocational Education have been sent for publication

Training

Teacher Training Programme

In order to improve instruction in the vocational schools, seven Teacher Training Programmes in the area of Sericulture, Accounting and Auditing, Marketing and Salesmanship, Commercial Garment Designing and Making, Entrepreneurship Development and Establishment of Production-cum-Training Centres in

vocational schools were organised. About 135 vocational teachers were trained in these programmes. Five teachers belonging to SC and 4 teachers of ST category were also trained.

Short-term Training of Key Functionaries

A short-term training programme was organised for key functionaries of the states of Maharashtra and Gujarat to bring about conceptual clarity with regard to implementation of the vocational education programmes

Orientation Programme

Seven orientation programmes on vocational education were organised. One such programme was held for the teachers of North Eastern states in which 18 teachers were trained. Orientation programmes exclusively for the vocational teachers of Goa were also held in the areas of Agriculture, Home Science, Business and Commerce, and Engineering and Technology in which 210 teachers were present. Orientation programme for the Disabled persons was held in Andhra Pradesh and one orientation programme for 37 key functionaries of vocational education was organised for the state of Karnataka at Bangalore

Extension

National Seminar/ Meetings

Eight national seminars/meetings were organised in the area of (i) Population of Horticulture Vocational Courses, (ii) Awareness and Networking with respect to Food Preservation and Processing, (iii) Transport Sector, (iv) Work Experience/ SUPW, (v) Linking Vocational Education at +2 Level with Higher Education, (vi) Overcoming Constraints in Economic Empowerment of Women, (vii) Vocational

Education for Disabled Persons, and (viii) Articulation of Vocational Education at +2 Level with Higher Education in Agriculture.

Independence Golden Jubilee Regional Seminars

Under the series of Independence Golden Jubilee Regional Seminars, four seminars were organised, one each for Southern Region, Eastern Region, Western Region and North Eastern Region and attended by 207 participants. The main objectives of these seminars were (i) to emphasize the role of vocational education for empowerment of rural population with emphasis on tribals and artisans, (ii) to examine the existing vocational training system in rural areas for both formal and non-formal sectors, (iii) to seek views of the number of agencies and individuals with regard to developmental programme for rural areas through vocational education system, and (iv) to identify the possibilities of vocational courses which will satisfy the students both intellectually as well as financially through new work opportunities in their own villages

Awards for Promotion of Vocational Education

In order to enhance the morale of the dedicated persons and to set examples for emulation by others, the PSSCIVE organises every year a programme on awards for promotion of vocational education on the occasion of its foundation day, i.e. on 5 July. The awardees are given momentos, certificates and also cash prizes. During the year under report programme was attended by distinguished educationists, administrators and 250 invitees including 46 recipients of the following awards:

- Best Achiever Awards (two per state based on the result of the Higher Secondary Examination in the state).
- Best Vocational Teacher Award (one for each state)
- Best Institution Award (one for each state)
- Best School-Industry Linkage Award (one for each state)

Exhibitions

Four exhibitions for popularisation of vocational education were organised, one each at Ravindra Bhawan, Bhopal on the occasion of the Foundation Day of the Institute; Academy of Administration, Bhopal during D S Kothari Seminar on Linking Vocational Education at +2 level with Higher Education; at NCERT, New Delhi, and PSSCIVE, Bhopal during National Seminars. Various Material on vocational education such as Competency-based Vocational Curricula, Instructional Material, Guidelines, Reports and Popularisation Folders of various courses were displayed.

Career Conferences for the Lab Schools of PSSCIVE

Fourteen conferences were organised for the 14 lab schools of PSSCIVE in Bhopal and neighbouring areas. The main objectives of this programme were to (i) create awareness amongst students of Class X about vocational education programme and various vocational courses running in their school and in neighbouring schools, (ii) help the vocational pass-outs in their future career planning, and (iii) help the vocational teachers and the principals in actual administration of the scheme of vocationalisation of education. A team of PSSCIVE faculty members, one each from all six divisions, and officials from



District Industries Centre, provided the desired input in the conference. An exhibition of the PSSCIVE publications was organised in each school. Bookmarks and pamphlets on vocational education programme developed by the PSSCIVE were also distributed.

Publication of Quarterly Bulletin

The quarterly Bulletin of *Vocational Education* is being published regularly. Copies of the bulletin are sent to over 4,000 schools in the country and state key functionaries. During the year under report, two issues were published and other two issues are under print.

Consultancy

The V.V Giri National Labour Institute, Ministry of Labour, Government of India was assisted in development and finalising 15 modules of vocational skill training covering three major areas, namely, Home Science, Engineering and Technology, Agriculture and Generic Core Components.

The PSSCIVE provided consultancy to the Arunachal Pradesh, Mizoram and Assam for establishment of special vocational schools, establishment of Production-cum-Training Centre (PTCs), and revision of vocational syllabus respectively.

Reports and Other Material Brought Out during 1998-99

General Publications

1. Quarterly Bulletin – Vocational Education (two issues)
2. Functions and Activities of PSSCIVE
3. Job Opportunities after Higher Secondary Vocational Education

4. Vocationalisation of Education: Perspectives for the New Millennium — The Challenge
5. Survey Report — Vocational Education Programme for the Disabled and Directory of the Institution/Organisations Offering Vocational Education for the Disabled
6. *Apki aur Apke Kadamon ki Doori Sirf Ek Kadam* (Hindi) —Poster
7. There is a New Whole World beyond the Set Tracks — Poster

Competency-based Vocational Curricula

1. Sericulture
2. Plant Protection
3. Watershed Management
4. Seed Production Technology
5. Dairy Technology
6. Repair and Maintenance, Rewinding and Installation of Electrical Motor
7. Electronics Technology
8. Computer Techniques
9. Rural Energy Management
10. Banking
11. Rural Informatics Management
12. Institutional House Keeping
13. Bakery and Confectionery
14. Food Preservation and Processing
15. Creche and Pre-school Management
16. Catering and Restaurant Management
17. Commercial Garment Designing and Making
18. Library and Information Science
19. Accounting and Auditing
20. Entrepreneurship Development
21. Telecommunication Technology (Xeroxed)

- 22. Bio-medical Equipment Maintenance Technician (Xeroxed)
- 23. Curriculum addendum on Environmental Education for Agriculture-based Vocational Courses (Xeroxed)
- 24. Fish Production Technology (Xeroxed)
- 25. Software Applications (Xeroxed)
- 26. A Framework on National Vocational Qualification on Building Construction (Xeroxed)
- 27. Curriculum addendum on Environmental Education for Engineering and Technology-based Vocational Courses (Xeroxed)

Development of Instructional Material

Vocational Education

- 1. Vegetable Production — Practical Manual for Class XI
- 2. Milk Processing — Practical Manual for Class XI
- 3. Dairy Production and Quality of Milk — Textbook for Class XI
- 4. Material Application — Textbook for Class XI
- 5. Office Procedure and Practice — Textbook for Class XI
- 6. Type Writing for Class XI
- 7. Environment and Development — Textbook for +2 vocational students (under GFC)
- 8. Generic Vocational Course for Class XII — Theory
- 9. Medical Laboratory Technician Vocational Course (Xeroxed)
- 10. Floriculture and Landscaping — Textbook for Class XII (Xeroxed)

- 11. Floriculture and Landscaping — Practical Manual for Class XII (Xeroxed)
- 12. Acquaculture II — Textbook for Class XII (Xeroxed)
- 13. Acquaculture II — Practical Manual for Class XII (Xeroxed)
- 14. Fish Breeding and Seed Production — Textbook for Class XII (Xeroxed)
- 15. Supplement — Riverine and Reservoir Fisheries — Practical for Class XI (Xeroxed)
- 16. Computer Application in Business — Textbook for Class XI (Xeroxed)
- 17. Business Communication and Statistics — Textbook for Class XI (Xeroxed)
- 18. Business Communication and Statistics — Practical Manual for Class XI (Xeroxed)
- 19. Elements of Cost Accounting — Textbook for Class XII (Xeroxed)
- 20. Auditing — Textbook for Class XII (Xeroxed)
- 21. Auditing — Practical Manual for Class XII (Xeroxed)
- 22. Advanced Apparel Designing — Textbook for Class XII (Xeroxed)

Pre-Vocational Education

- 23. Repair and Maintenance of Tillage and Sowing Equipment
- 24. Repair and Maintenance of Power Thresher
- 25. Repair and Maintenance of Plant Protection Equipment
- 26. Bamboo Craft (Hindi)
- 27. Batik
- 28. Tie and Dye
- 29. Doll Making (Hindi)

**Workshops/Meetings/Seminars/Conferences/Training/Orientation Programmes organised
by Pandit Sunderlal Sharma Central Institute of Vocational Education (PSSCIVE)**

S.No.	Title of the Programme	Dates	Venue	No.of Participants
1.	2.	3.	4.	5.
1	Working Group Meeting to develop a Handbook on Vocational Guidance and Counselling for the students of secondary & senior secondary schools	18 to 22 May 1998	Bhopal	07
2	Working Group Meeting Development of National Vocational Qualifications in Building Maintenance area	28 July to 01 August 1998	Bhopal	07
3	Working Group Meeting to develop a Handbook on Vocational Guidance and Counselling for the students of secondary & senior secondary schools	14 to 18 September 1998	Bhopal	05
4	Working Group Meeting for development of curriculum on PC Assembly & Hardware Maintenance (1 st phase)	02 to 04 November 1998	Bhopal	05
5	Working Group Meeting for development of competency based curriculum on Tele-communication Technology	03 to 05 November 1998	Bhopal	08
6	Working Group Meeting for development of curriculum on Transport Service Management	02 to 03 December 1998	Bhopal	11
7	Working Group Meeting for review and revision of curriculum on Fish Processing Technology	07 to 11 December 1998	Bhopal	05
8	Working Group Meeting for development of framework for National Vocational Qualification in Crop Production	21 to 25 December 1998	Jabalpur	18
9	Working Group Meeting for review and revision of competency based curriculum on Insurance	28 December 1999 to 01 January 1999	Goa	09
10	Working Group Meeting for review and revision of competency based curriculum on Software Applications	07 to 11 January 1999	Annamalai Nagar	06

11	Working Group Meeting for promotion of PTC to in the schools running Food Preservation and Processing vocational course in Gujarat	07 to 08 January 1999	Vallabh Vidhyanagar	44
12	Working Group Meeting for development of curriculum addendum on Integration of Environmental Components with vocational curriculum in the area of Engg & Tech	11 to 15 January 1999	Bhopal	10
13	Working Group Meeting for revision of existing instructional material on Medical Laboratory Technician Course	12 to 15 January 1999	Bhopal	03
14	Working Group Meeting for development of competency based vocational course Agri-Business	12 to 16 January 1999	Bhopal	05
15	Workshop (Phase-II) for development of competency based curriculum on Telecommunication Technology	20 to 23 January 1999	Coimbatore	10
16	Working Group Meeting for development of instructional materials for the training of Neo-literate in Ceramic Work	01 January to 05 February 1999	Bhopal	05
17	Working Group Meeting for development of curriculum on Bio-Medical Equipment Technician Course	03 to 06 February 1999	Bhopal	05
18	Workshop (Phase-II) for development of competency based curriculum on Computer Assembly & Maintenance	08 to 10 February 1999	Bhopal	03
19	Working Group Meeting (Phase -II) for development of curriculum on Transport Service Management	12 to 16 February 1999	Chennai	07

Training

20	Short Term Teachers Training Programme in Sericulture	15 May to 09 June 1998	Bangalore	11
21	Short Term Teachers Training Programme in Accounting and Auditing	03 to 24 June 1998	Mumbai	19
22	Short Term Teachers Training Programme in Marketing and Salesmanship	03 to 24 June 1998	Annamalai Nagar, Tamilnadu	15

23	Short Term Teachers Training Programme in Commercial Garment Designing and Making	09 June to 03 July 1998	Kanpur	10
24	Short Term Training of Key Functionaries of the States	08 to 18 July 1998	Bhopal	03
25	Short Term Teachers Training Programme in Entrepreneurship Development	07 to 16 September 1998	Bangalore	28
26	Short Term Teachers Training Programme in Entrepreneurship Development for the teachers of Uttar Pradesh	28 December 1998 to 06 January 1999	Indore	21
27	Short Term Teachers Training Programme for Establishment of PTC in vocational schools	04 to 09 January 1999	Mumbai	31
Extension				
28	National Seminar on Popularization of vocational course in Agriculture	15 to 17 April 1998	Bangalore	30
29	National Seminar on Awareness & Networking with respect to Food Preservation & Processing	21 to 22 April 1998	New Delhi	1-
30	National Seminar on Transport Sector	22 to 24 April 1998	New Delhi	1-
31	Orientation Programme on vocational education for the key functionaries of North East Region	12 to 15 May 1998	Shillong	11
32	PSSCIVE Awards for promotion of VEP Fifth PSSCIVE Foundation Day Celebration	05 July 1998	Bhopal	4
33	Orientation Programme for the vocational teachers of Goa, teaching Agriculture & Home Science Subjects	13 to 17 July 1998	Porvorim, Goa	5
34	Golden Jubilee Regional Seminar on Vocational Education (Southern Region)	14 to 16 July 1998	Mysore	3
35	Golden Jubilee Regional Seminar on Vocational Education (Eastern Region)	21 to 23 July 1998	Bhubaneswar	5
36	Orientation Programme for the vocational teachers of Goa, teaching Business and Commerce Subjects	28 July to 01 August 1998	Porvorim, Goa	7

37	Regional Seminar (earlier Golden Jubilee) on Vocational Education for Rural Development (NorthEast Region)	08 to 10 August 1998	Itanagar	38
38	Golden Jubilee Regional Seminar on Vocational Education (Western Region)	11 to 13 August 1998	Porvorim, Goa	78
39	Orientation Programme for the vocational teachers of Goa, teaching Engineering and Technology Subjects	17 to 21 August 1998	Provorm, Goa	78
40	National Seminar on Work Experience/SUPW	08 to 10 September 1998	Bhopal	15
41	Orientation Programme for the key functionaries of Karnataka state	27 to 29 October 1998	Bangalore	37
42	Evaluation of VEP in Tamilnadu state	30 October to 15 November 1998	Various places of Tamilnadu	----
43	D S Kothari National Seminar on linking Vocational Education at +2 level with Higher Education	17 to 19 November 1998	Bhopal	36
44	Career Conference in 14 Lab schools of PSSCIVE in Bhopal & neighboring areas	30 November 1998 to 07 January 1999	Bhopal	----
45	Identification of training seats for apprenticeship training for the course Textile Designing/Commercial Garment Designing and Making	29 November to 11 December 1998	Delhi	----
46	National Seminar on Overcoming Constraints in Economic Empowerment of Women	08 to 10 December 1998	Bhopal	30
47	National Seminar-cum-Orientation Programme on Vocational Education for the Disabled persons	22 to 24 December 1998	Hyderabad	50
48	National Seminar on Articulation of vocational education at +2 level with higher education in Agriculture	09 to 10 February 1999	Delhi	27

X

VOCATIONALIZATION OF EDUCATION

1999-2000

X

Vocational Education

The NCERT is the national apex research and development organisation in the field of Vocational Education. It is also a centre of International Project on Technical and Vocational Education (UNEVOC) in India, which is administered by the UNESCO. The principal aim of the PSSCIVE is to provide R&D and technical support to a variety of vocational education programmes and to advise and assist the central and state governments, on the implementation of Vocational Education (VE) and Work Experience (WE) Programmes as the technical wing of Joint Council of Vocational Education (VE) and MHRD. PSSCIVE undertakes, guide and coordinates curriculum development, training, dissemination of information, extension, research, monitoring and evaluation and offer consultancy in the area of VE, both formal and non-formal. It undertakes programmes to establish equivalence of certificates and to accredit vocational institutions and programmes keeping the quality parameters in view, to promote a national, regional and international network of vocational education information systems and services based on voluntary cooperation of related and other organisations and to look after the international aspects of vocational education and human resource development. Highlights of the programmes/activities undertaken during 1999-2000 in the area of vocational education are as follows:

Research

The following research projects on vocational education are in progress

- Comparative Study of Implementation of General Foundation Course in Certain States
- Benchmark Survey of Vocational Guidance in States
- Status Study of Vocational Pass-outs of Business and Commerce based Vocational Courses in India
- Career Aspirations of Girls in Urban and Rural Societies vis-a-vis Vocational Education

- Establishment of School-Industry Linkage in Secondary Vocational Schools — Action Research
- Comparative Evaluation of Quality and Standard of Vocational Curricula and Instructional Materials in Selected States.
- Comparative Study of the Status and Effectiveness of Vocational Teaching Learning Agriculture
- A Case Study on School-Industry Linkage of Some Vocational Institutions of Maharashtra
- Effect of On-the-Job Training (OJT) on the Performance of Vocational Students of Punjab
- Significance of Home Science Vocational Courses on Economic Empowerment of Women
- Role of Teacher Arrangement in Development of Vocational Skills in the 10+2 Level Students

Development

Development and Revision of Curricula of Vocational Courses

Curriculum of Plantation Crops and Management, General Receptionist, Office Management, Stenography, Fish Seed Production and Ophthalmic Technician courses were revised. New curricula on Computer Aided Drawing and Drafting, Low Cost Housing, Community based Rehabilitation (Community Rehabilitation Assistant) and Curriculum Addendum on Integration Environmental Components with Vocational Curricula of (i) Health and Paramedical, and (ii) Home Science were developed. A Handbook on Vocational Guidance and Counselling for the students of secondary and senior secondary schools has also been developed and will be finalised after a pilot study is made.

Development of National Vocational Qualifications (NVQ) System

Under National Vocational Qualification System a large number of short modular courses in Horticulture, Sericulture and Electrical

Engineering were developed and modules developed under Crop Production and Building Maintenance were reviewed.

Development of Instructional Materials for Vocational and Pre-Vocational Courses

Fifteen manuscripts of instructional material on Vocational education, mostly textbooks for Classes XI and XII and nine manuscripts of material on pre-vocational education have been developed and are under publication

Training

Short-term Training of Key Functionaries

A short-term training programme was organised for 10 key functionaries of the States of Madhya Pradesh, West Bengal, Goa, Orissa, Delhi and J&K to bring about conceptual clarity with regard to implementation of the vocational education programmes.

Teachers Training Programmes

In order to improve instruction in the vocational school twelve Teachers Training Programmes in the area of Purchasing and Store Keeping, Repair and Maintenance of Electric Domestic Appliances, Establishment of Production-cum-Training Centres (PTC) in the schools of Kerala, Computer UNIX System Administration, Computer Techniques, Vocational Guidance and Counselling for Delhi, Himachal Pradesh, Punjab and Haryana, Entrepreneurship Development, Vocational Guidance and Counselling for the teachers of Tribal Welfare Department of Madhya Pradesh, Maharashtra, Uttar Pradesh, Bihar, Gujarat, Entrepreneurship Development for Instructors/Teachers of NGOs Working for Disabled, one training programme for teachers of SC/ST and Minority Institutions were organised. In all 285 teachers were trained in these programmes.

On the request of Kendriya Vidyalaya Sangathan, New Delhi, a training programme on Generic Vocational Course was organised

for 19 Work Experience teachers of Kendriya Vidyalayas of different States

Vocational Training of Neo-literate Tribal/Rural Women

A 25-day Comprehensive Vocational Training Programme for the Neo-literate Tribal/Rural Women was organised in collaboration with Central Institute of Agricultural Engineering (CIAE), Bhopal for 25 neo-literate rural women. Out of these, a group of 10 participants underwent training in two areas namely Tractor Operation Care and Maintenance and Biogas Plant Maintenance. The other 15 participants also received training in two areas, i.e., Utilisation of Home and Agricultural Waste and Biogas Plant Maintenance.

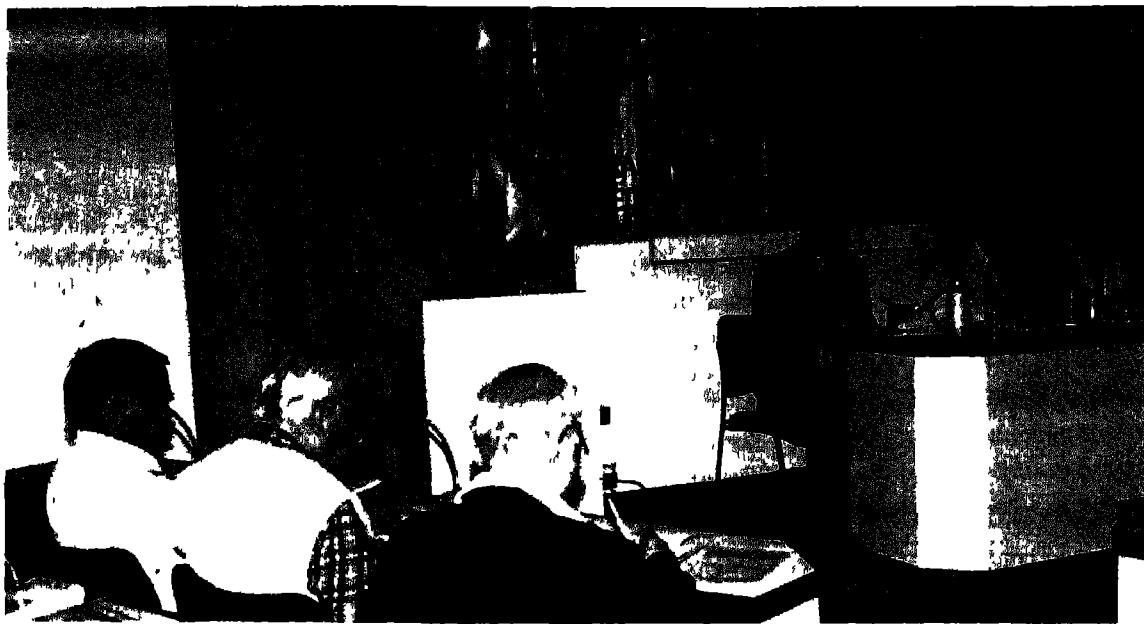
Orientation Programmes

Eight orientation programmes were organised during the year, two on vocational education for the key functionaries of Andhra Pradesh and Delhi, one on vocational guidance and counselling for North Eastern States, one each for NGOs, institutions involved in minority education and SC/ST key functionaries, and two orientation programmes for the teachers of Business and Commerce of the States of Haryana and Andhra Pradesh.

Extension

National Seminars/National Conferences/National Meetings

National Seminars/Meetings were organised to popularise (i) Fisheries, Dairy, Poultry and Piggery, (ii) Engineering and Technology, (iii) Business and Commerce related vocational courses, and (iv) Travel and Tourism Management vocational course. National Seminars were also organised to discuss the Draft Discussion Document on National Curriculum Framework for School Education and on Assessing the status of VEP. A National Conference was organised at IIT, New Delhi on vocationalisation of Education — Perspectives for the New-Millennium to



National Seminar on Popularisation of Commerce Based Vocational Courses.

come out with Indian Perspective on vocational education for the new millennium as a prelude to Second International Congress on Technical and Vocational Education (TVE), held at Seoul

Awards for Promotion of Vocational Education

In order to enhance the morale of the dedicated persons and to set examples for emulation by others, the PSSCIVE organises every year a programme on awards for promotion of vocational education on the occasion of its foundation day, i.e., on 5th July. This year the programme was held on 17/11/1999 at Technical Teachers Training Institute (TTTI) Auditorium, Bhopal. The programme was attended by 200 invitees including distinguished educationists, administrators and 42 awardees. The following awards were given on this occasion:

- Best Achiever Awards (two per State based on the result of the Higher Secondary Vocational Education Examination in the State)
- Best Vocational Teacher Award (one for each State)

- Best Institution Award (one institution, offering +2 vocational courses for each State)
- Best School-industry Linkage Award (one for each State, given to school as well as industry)

The awardees were given mementos and certificates. Students and teachers were also given cash prizes. It is perceived that these



Prof. M.S. Sodha, giving away the PSSCIVE Best Achiever Award

awards will contribute towards qualitative expansion of the Vocational Education Programme in the country.

Indian Journal of Vocational Education

The Institute has started publishing a bi-annual journal titled Indian Journal of Vocational Education. The journal provides a forum to all concerned to contribute research papers, articles, review and abstracts, related to vocational education. This year one joint issues has been published and another joint issue is under print.

Quarterly Bulletin of Vocational Education

For popularising vocational education the Institute is publishing a Quarterly Bulletin — Vocational Education. Copies of the Bulletin are sent to 4000 schools in the country and State key functionaries. This year two issues of the bulletin were published jointly and another volume having two issues (Hindi/English version) jointly is underprint.

Exhibitions of Publications

With a view to give wide publicity to the vocational education programme, the PSSCIVE organises every year exhibitions of its publications. This year, two exhibitions of the publications were organised one on the occasion of PSSCIVE Awards Ceremony at TTI, Bhopal and another during the National Conference held at IIT, Delhi. Exhibition was also organised during Short-term Training of key functionaries programme organised by the Institute.

Evaluation of NGOs

As a member of the Joint Evaluation Team (JET) of MHRD, PSSCIVE evaluated the NGOs of Bihar, particularly of Patna and Vaishali districts receiving financial assistance from MHRD for conducting innovative vocational programmes under Centrally Sponsored Scheme and submitted the report to MHRD. Several proposals submitted by the NGOs for

financial assistance to MHRD were also evaluated and comments on their suitability for grant-in-aid to the ministry were also submitted to MHRD.

Other Activities

Intensive Interaction with Key Players in the States for Promotion of VEP

A few States were visited to have intensive discussion with the Education Minister, Officials of State Education Department and other key functionaries on various facets of the implementation of vocational education programme. The States visited include Himachal Pradesh, Meghalaya, Uttar Pradesh and Orissa. The role and functions of PSSCIVE, present status of VEP in the country and implementation of problems of the concerned States have been discussed.

Consultancy to States

The Institute provided consultancy to the States/UTs on various aspects of implementation of vocational education programme through discussion and visits.

- Meeting with the Advisor to the Chief Minister of Madhya Pradesh to explore the possibility of introducing vocational education at the middle level
- Committee on vocational education constituted by the Government of Madhya Pradesh
- The States of Madhya Pradesh and Andhra Pradesh were assisted in the development of syllabus/curriculum of General Foundation Course (GFC), Assam Higher Secondary Education Council, Guwahati is revising 8 courses in the area of Agriculture, Business and Commerce, Engineering and Technology and Home Science.
- Consultancy was also provided to Govt of Madhya Pradesh for its committee on vocational education and exploring possibility of introducing VE at the middle level.

Regional Level Inputs in the Area of Vocational Education

The RIE, Ajmer trained the Key Resource Persons from Punjab and Haryana in undertaking work experience/SUPW activities at elementary level in the areas of Home Science, Agriculture, Commerce and Science. Instructional materials were developed on the methodology of teaching vocational accountancy at Senior Secondary Level.

Reports and Other Materials Brought Out during 1999-2000

General Publications

- Quarterly Bulletin — Vocational Education, Vol-V, Issue 3&4 (joint issue) (Printed)
- Quarterly Bulletin — Vocational Education, Vol VI Issue 1&2 (joint issue) (Under Print)
- Indian Journal of Vocational Education, Vol 2, No 2 and Vol 3, No 1 (joint issue) (Printed)
- Indian Journal of Vocational Education Vol 3, No 2 and Vol.4 No 1 (joint issue) (Under Print)
- Vocationalisation of Education Perspectives for the New Millennium — The Challenge (Printed)

Vocational Curricula

- Competency based Vocational Curriculum on Food Preservation and Processing (Hindi) (Printed)
- Competency based Vocational Curriculum on Insurance (Printed)
- Competency based Vocational Curriculum on Taxation Practice (Printed)
- Guidelines on Establishment of Production-cum-Training Centres in the Schools Running 10+2 Vocational Centres (Hindi) (Printed)
- Competency based Vocational Curriculum on X-Ray Technician (Printed)

- Competency based Vocational Curriculum on Medical Laboratory Technician (Printed)
- Competency based Vocational Curriculum on Purchasing and Store Keeping (Under Print)
- Competency based Vocational Curriculum on Transport Service Management (Under Print)
- Competency based Vocational Curriculum on Travel and Tourism Technique (Under Print)
- Competency based Vocational Curriculum on Commercial Garment Designing and Making (Hindi) (Under Print)
- Competency based Vocational Curriculum on Dairy Technology (Hindi) (Under Print)
- Competency based Vocational Curriculum on Fish Processing Technology (Under Print)
- List of Non-formal and Formal Vocational Courses (Printed)

Instructional Materials

Vocational Education

- Dairy Animal Management Textbook for Class XI (Printed)
- Fruit Production Textbook for Class XII (Printed)
- Commercial Clothing Textbook for Class XI (Xeroxed)
- Basic Bakery Textbook for Class XI (Xeroxed)
- Food Preservation Techniques Textbook for Class XI (Xeroxed)
- Food Packaging Textbook for Class XI (Xeroxed)
- Elements of Salesmanship Textbook for Class XI (Xeroxed)
- Elements of Marketing Textbook for Class XI (Xeroxed)

- Public Health Administration and Health Statistics Textbook for Class XII (Xeroxed)
- General Sericulture Textbook for Class XI (Xeroxed)
- Mulberry Cultivation Textbook for Class XI (Xeroxed)
- Silk Worm — Silk Production Technology Textbook for Class XII (Xeroxed)
- Silk Worm-Rearing Textbook Class XII (Xeroxed)
- Silk Rearing Technology (Xeroxed)
- Agri Business Textbook for Class XII (Xeroxed)
- Agri Business Practical for Class XII (Xeroxed)
- Manufacture Material and Technology Textbook for Class XII (Xeroxed)
- **Pre-Vocational Education**
- Bio-Fertilizer (Xeroxed)
- Milk Confectionery (Xeroxed)
- Sugar Confectionery (Xeroxed)
- Preparation of Bread and Other Yeast Leavened Products (Xeroxed)
- Preparation of Biscuits and Cookies (Xeroxed)
- Preservation of Fruits and Vegetables Using Chemicals (Xeroxed)
- Preservation of Fruits and Vegetables by Drying and Dehydration (Xeroxed)
- Preservation of Fruits and Vegetables Using Sugar (Xeroxed)
- Preservation of Fruits and Vegetables Using Salt, Vinegar and Oil (Xeroxed)
- Instructional Materials on Sericulture for Neo-literate (Under Print)

Workshops/Meetings/Seminars/Conferences/Training/Orientation Programmes organised by
Pandit Sunderlal Sharma Institute of Vocational Education (PSSCIVE), Bhopal

S.No.	Title of the Programme	Dates	Venue	No. of participants
1	2	3	4	5
1.	Working Group Meeting (IIrd) for Development of Handbook on Vocational Guidance and Counselling for Secondary and Senior Secondary School.	21 to 25 June, 1999	PSSCIVE Bhopal	06
2.	Working Group Meeting for Review and revision of curriculum on 'Plantation Crops and Management'.	25 to 30 September 1999	Kasargod (Kerala)	07
3.	Working Group Meeting for Review of Occupations, Competencies and Curriculum for NGOs in Dairying, Crop Production and Building Construction Sector.	27 to 30 September, 1999	PSSCIVE Bhopal	15
4.	Working Group Meeting for Development of Competency based Curriculum in 'Computer Aided Drawing and Drafting'.	11 to 15 October 1999	NCERT New Delhi	06
5.	Working Group Meeting for Development of National Vocational Qualifications in Agriculture-Fisheries Sector-Phase-I.	11 to 1 October 1999	PSSCIVE Bhopal	19
6.	Working Group Meeting for Development of Instructional Material of Institutional House Keeping.	25 to 29 October 1999	MS University Baroda	06
7.	Workshop-Promotion of PTC in school running Food Preservation and Processing Vocational Course in Gujarat - IIInd phase.	22 to 29 November 1999	Various places of Gujarat	03
8.	Working Group Meeting for Development of Occupation based competencies and curriculum for Horticulture and Agriculture Sector.	30 November 1999 to 4 December 1999	RIE, Mysore	14

1	2	3	4	5
9.	Working Group Meeting for Development of NVQ in Engineering and Technology: Electrical Engineering based Vocation: Phase-I	29 November to 3 December 1999	RIF Bhopal	08
10.	Workshop for Promotion of PTC in Schools running CGDM Course in Andhra Pradesh (Phase-I)	14 to 15 December 1999	Hyderabad	39
11.	Working Group Meeting for Development of Curriculum Addendum on Integration of Environmental Components with Vocational Curriculum of Health and Paramedical Courses.	14 to 16 December 1999	PSSCIVE Bhopal	06
12.	Working Group Meeting for Development of competency based curriculum on Community Based Rehabilitation (CBR).	10 to 12 January, 2000	Tirupati, A.P.	09
13.	Working Group Meeting for Revision of Curriculum on General Receptionist.	24 to 28 January 2000	Alappa University Karaikundi (Kerala)	12
14.	Working Group Meeting for revision of Curriculum on Ophthalmic Technician Course.	25 to 28 January 2000	PSSCIVE Bhopal	02
15.	Working Group Meeting for Development of NVQ in Engineering and Technology: Electrical Engineering based Vocations - Phase-II	29 January 2000 to 2 February 2000	ITI, Pune	09
16.	Working Group Meeting for Review and revision of Curriculum on Office Management and Stenography	7 to 11 February 2000	NCERT New Delhi	09
17.	Working Group Meeting for Review and revision of Curriculum on Fish Seed Production.	7 to 11 February 2000	PSSCIVE Bhopal	03
18.	Working Group Meeting for Development of Curriculum on Low Cost Housing.	29 February to 3 March 2000	PSSCIVE Bhopal	12

1	2	3	4	5
19.	Working Group Meeting for Development of Handbook on Vocational guidance and Counselling for the students of Secondary and Senior Secondary level.	6 to 10 March, 2000	PSSCTVE Bhopal	04
20.	Working Group Meeting for Reformulation of one Home Science Vocational Course to modular form.	13 to 16 March 2000	PSSCIVE Bhopal	03
21.	Working Group Meeting for Development of Curriculum addendum on Integration of Environmental Components with Vocational Curriculum in the area of Home Science.	14 to 16 March 2000	PSSCIVE Bhopal	08
22.	Working Group Meeting for Development of Curriculum on Community Based rehabilitation.	22 to 24 March 2000.	Vishakhapatnam	08
23.	Working Group Meeting for Development of Instructional Material for Neo-literates.	28 to 31 March 2000	PSSCIVE Bhopal	04
24.	Working Group Meeting for Curriculum analysis of Food Preservation and Processing vocational course for linking +2 level with 1st degree vocational courses.	30 March 2000 to 3 April 2000	Coimbatore	12
25.	Short term Training of Key-functionaries of States on Vocational Education.	5 to 16 July 1999	PSSCTVE Bhopal	10
26.	Teachers Training Programme on Purchasing and Store Keeping.	12 to 31 July, 1999	Nagpur	23
27.	Short term Teachers Training Programme on Repair and Maintenance of Electric Domestic Appliances.	22 July to 6 August 1999	TTI, Nasik	36
28.	Promotion of PTC-Establishment of PTC in Vocational Schools of Kerala.	16 to 19 August 1999	Trivendrum	24

1	2	3	4	5
29.	Short term Teachers Training Programme in Entrepreneurship Development for Instructors Trainers of NGOs working for Disabled.	6 to 15 October 1999	PSSCTVF Bhopal	11
30.	Teachers Training Programme on Computer Unix (Pagemaker & Unix system Admn.)	25 October 1999 to 3 November 1999	PSSCTVE Bhopal	20
31.	Short term Teachers Training programme in Entrepreneurship Development for Vocational Teachers.	12 to 21 November 1999	Indore	20
32.	Short-term Teachers Training Programme for Vocational Teachers of Vocational Guidance & Counselling of Tribal Welfare Department M.P.	14 to 23 December 1999	PSSCTVE Bhopal	17
33.	Short-term Teachers Training Programme for Teachers of SC/ST/ Minorities and DMS Bhopal.	14 to 17 December 1999	PSSCTVE Bhopal	33
34.	Teachers Training Programme on Computer Technique (Internet & Web Page Design through HTML).	27 to 31 December 1999	Goa	20
35.	Short-term Training Programme on Vocational Guidance and Counselling for Vocational teachers of tribal areas of M.P. Maharashtra, U.P., Gujarat & Bihar	17 to 25 January 2000	PSSCTVE Bhopal	32
36.	Short-term Training Programme on Vocational Guidance and Counselling for vocational teachers of Higher Secondary Schools of Delhi, H.P., Punjab & Haryana.	22 February to 2 March 2000	NCERT New Delhi	26
37.	Short-term Teachers Training Programme in Entrepreneurship Development for Karnataka & Orissa.	24 March to 4 April 2000	Bangalore	23

1	2	3	4	5
49.	National Seminar on Vocational Education Programme - Present status & Future Directions in the New Millennium (for the Directors of Education).	20 to 22 January 2000	Chandigarh	42
50.	National Seminar on Popularisation of Fisheries, Dairying, Poultry and Piggery Vocational Courses.	16 to 18 February 2000	Goregaon, Mumbai	24
51.	National Seminar to Discuss the Draft Discussion Document on National Curriculum Framework for School Education (Non-PAC).	7 to 8 March 2000	Hyderabad	59
52.	National Seminar for Promotion of Commerce Based Vocational Course.	13 to 15 March 2000	CTFT, NCERT New Delhi	30
53.	National Seminar for Popularisation of Engineering & Technology based Vocational Courses.	14 to 16 March 2000	MCID, Aurangabad	36
54.	PSSCIVF Awards 1990 for Promotion of VFP.	17 November 1999	TTI, Bhopal	42

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